TPUG Newsletter

Views and News of Toronto Pet Users Group, Inc.

c/o John Easton - Editor, 258 Lake Promenade, Etobicoke, Ontario, M8W 1B3 (416) 251-1511

Volume 7, Number 0 **Spring 2002**

From the President -

A little over 6 months ago the World Trade Towers collapsed at the hands of terrorists. Although the initial shock of that day is only now beginning to slowly subside, it leaves in its wake the heavy feelings of loss, sadness and mourning for those victims of this terrible event. Clean up of the site continues and as more bodies are found more families are able to find closure among the ranks of the missing. TPUGs board of directors and all the membership that the board has had direct contact with, all express the same feelings of sympathy and moral support to all of the victims and their families during their time of grief and their recovery. God bless them all.

The Muslim community is a very friendly and loving group. They believe in the same God as Jews and Christians and to them God comes first, followed by strong family ties and community is third. The Quran is the book of Islam given to mankind by God through the Prophet Muhammad (May Peace Be Upon Him). I have read some of this great book and look forward to much more. In the Quran man is told how he/she should conduct themselves in their day to day activities. The Quran stipulates that the young, the old, women and unarmed men should be spared from being killed during times of war. For that reason, many Muslims that I have talked to, at work, at the mosque, and my relatives, all condemned the terrorist simply because their actions go against the Islamic teachings. I too support their views because I converted to Islam about 3 years ago.

In April (19-21, 2002) TPUG will be attending COMPERFEST SHOW at the International Centre (Airport Rd. and Derry Rd.) in Mississauga. As usual we will have 3 computer systems (C64,C128 & A500), used software and books for sale as well as blank disks (3.5 & 5.25) and Commodore refurbished 1581 disk drives. Come visit our booth.

In May(25 & 26, 2002) several members of TPUG will attend the COMMODORE EXPO down in Louisville Kentucky and I will be putting on a demo of Fun Graphic Machine a program that out does PrintMaster and Print Shop. I may put on a demo about interfacing to the C64. Also on September 26,2002 at the Alderwood Church at about 8:00 PM TPUG will have its Annual General Meeting.

I hope to see you at these events.

Regards,

Tom Luff

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
We have discontinued our TPUG phone listing - contact members as listed here at home phones.

e-mail : tpug@icomm.ca

Membership Rates

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

Board of Directors

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.....and Ernie Chorny
Shows .Tom Luff & Ernie Chorny
Webmaster ..... Ian McIntosh
Newsletter
Editor John Easton (416) 251-1511
..... jeaston@idirect.com

Meeting Schedule

Amiga East: Second Tuesday of the month.
Contact - Ernie Chorny (905) 279-2730
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 (except summer) at Alderwood United Church, 44 Delma Drive. Delma Drive is just west of and parallel to Browns Line, south of the Queen Elizabeth Highway, north of Horner Avenue. From the west, exit QEW at Evans Avenue, east on Evans to 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 *e-mail: ntluff@3web.net*
or Ernie Chorny(905) 279-2730

TPUG on the Internet:

http://www.icomm.ca/tpug
e-mail: *tpug@icomm.ca*

from your editor ...

Well now, and it's been a while ... but I have good news for you ... TPUG has joined with the new United Commodore User Groups Association (UCUGA) and in future will attempt to attach or otherwise bundle that newsletter *(**The Commodore Digest** - edited by Rolf Miller and published by Dale Sidebottom)* with ours. This should ensure a few more copies of interesting stuff throughout the year - and *certainly* more on the C=64 and C=128. Dale is the one who has over the past couple of years published that amazing multi-coloured and rechly embellished newsletter - The LUCKY Report for the LUCKY club in Louisville KY, the organizers of the Louisville Commodore Expo. Contact Rolf Miller for more information on this so-far well executed monthly newsletter. *Rolf L. Miller, 492 Anacapa Street, Ventura, CA 93001 <rolfmiller@aol.com>.*

Canadian postal rates have changed - which means that we can only send a 10 page newsletter (double sided) for the normal postage - or a 20 page one for double postage. Tell ya what, I'll attempt to append a few pages from the premier issue (January 2002) to this newsletter 'till I reach the maximum of 20 pages.

One thing to note **- we will be dropping our Post Office Box in the summer - note the new address on the masthead - comments and submissions are always welcome.**

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

Articles, letters, tips, questions, art, etc. are welcome. Send hardcopy or disks "Attn: TPUG Newsletter", or use 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
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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 - Hold the press ...

Please note our new mailing address on the masthead (front cover) - we will be dropping our current Post Office Box in the summer.

Annual General Meeting
In accordance with our charter, we will hold our Annual (partly annual?) General Meeting on the 4th Thursday of September, (26 September) 2002 - 7:30 pm in our downstirs meeting room at Alderwood United Church, 44 Delma Drive, Etobicoke. Reports of our activities will be available to all members. All members are invited to attend to discuss our current status and plans for the future of TPUG. Directors will be appointed at this time - feel free to submit your name to any of the current directors should you be interested in volunteering to assist in the future of TPUG.

Classified

Another member-service!
For Sale:

2 - C64s, 2 - 1541 disk drives, colour monitors, joysticks, printers, and printer interfaces.
Call Tom Luff (905) 812-5231.

Miscellaneous Commodore Hardware and Software
is available from :
D.L. Johansen
Box 912, Troy, MT, 59935

COMMODORE GAZETTE
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<cmdrgazette@ameritech.net>
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* C= Club Members (-$5)	-$_____
32K RAM add $19	+$_____
subtotal	$_____
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Subtotal	$_____
Ontario Res add 8% PST	+$_____
Canada Res add 7% GST	+ $_____
TOTAL	$_____

Tom's World

Printed Circuit Board Layouts

As an electronic hobbyist I will design and construct my own printed circuit boards for final assembly of the project. The PCB allows me final say as to where components will be positioned. For instance components which need to be connected to the outside can be located close to the edge of the board so their wires do not touch other hot components or obstruct display components. PCBs also give a more professional look to a project. One advantage of designing your own PCB rather than using an experimenter's board is there are no (or few) wires stacked one upon another, this makes it easier to trouble shoot a project when one of the components go bad. I have made PCBs for several projects at work and for different companies.

I use my C64 in the process of design of a circuit as well as the layout of the PCB. There are two programs that very handy, the Flexi-draw 5.5 and Fun Graphic Machine ver.8. Both programs would do fine on their own but each program has features the other has not. For example Flexi-draw can use a mouse or a light pen were as FGM cannot, FGM can print in a wide variety dpi both vertically and horizontally as well as printing 9 monitor screens on one standard piece of paper (there are other combinations), Flexi-draw can do neither. Both programs have very good object copy features and zoom manipulation, which are critical to this type of work.

I usually start with Flexi-draw because it allows me to work with a mouse, which is faster then repeated pressing of a single key. To make Flex-draw faster to load, I used Super Snapshot to copy Flexi-draw while it was in the C64 and while the program was at the work page but I copied it on to a 3.5" disk in a 1581 for extra storage space. Now when I load Flexi-draw the program starts right at the work page rather then having to go through the programs introduction and device selection (i.e. mouse/ light pen/ keyboard). This also allows me to store library files on the same disk and helps protect my original from premature damage. The library files (xxxx.lib) are screens made with Flexi-draw of smaller pictures or objects. For my purposes they can be objects such as schematic symbols or pads for electronic components. The library file can be loaded to a work page and its objects can be copied from that page and paste to the other page.

Flexi-draw is a drawing program and there are some parameters that need to be selected. On the right hand side of the screen, near the top, I will select GRID by right clicking on the word PIXEL and I will select POINT by right clicking on the word DRAW or RUBBR. Right clicking at these locations will toggle through your choices. Use F8 to go to the device command screen where you may view a directory, load and save a file, or format a new disk. After you have loaded your file(s) and return to your work page you can then start to work.

Depressing F1 will display a checker board grid. This grid is only a reference tool and not a permanent part of your picture but it is very useful. Go to the library file on the other work page, by right clicking on the number at the top right corner of the screen and choose an object, then in the upper left corner of this object point and right click your mouse. This will select a point by placing an arrow there. Now left click the mouse and this will set the point as the first corner (a cross will appear on the arrow). Go to the bottom right corner of the object and right click the mouse; this selects the second corner of reference. The right clicking of the mouse selects the upper left corner of the block the mouse is pointing at, for this reason care should be taken on the selection of the block especially for the lower right corner of the object. If the wrong block is selected then some of the object could be missed. Point the arrow of the mouse to the "Y" in COPY at the right side of the screen and right click the mouse. Take the mouse's arrow to the top right of the screen and right click on the number. This will take you to the other work page where you will right click to the spot where you want the upper left corner of your object to be place. Move the mouse's arrow to the "T" in PASTE and right click on it. Your object will now be on this page. If you do not like where it is, simply right click on PASTE without moving the selected spot and the object will disappear. Here are two points of interest. One, when you paste on an object that is already there you will get an EOR effect (if a pixel from one object tries to occupy the space held by a pixel of another object then they cancel each other out - empty space). Two, you can move the select arrow by right clicking on the mouse when it points to another spot then right click the word PASTE to duplicate the copied object.

To draw a line it is the same method. Right click the start of the line, left click to set this point and right click the end point. Then right click the "E" in line and the line is drawn. Right clicking the mouse when its pointer is just to the right of the vertical line separating the functions from the work area will cause this line and future lines to change their width. You can chain your lines by doing your first line as described then left clicking the mouse and then select the new end point and right clicking the mouse. Left clicking the mouse again draws the line left clicking the mouse again set a new start for the next line. Repeating the last two lines over and over will result in a multiple lines each connected to the next. COPY, PASTE and LINE are the 3 most important functions I use. ZOOM is used to clean up unwanted detail or to add it. Zoom is used more in the drawing of objects rather then the creating of the schematic or a PCB layout. For the most that is all I use Flexi-draw for, most of my labeling and printing is done with FGM.

Fun Graphic Machine is a graphic manipulation program with allot more power then Print Shop or Print Master. It will load and use the 3 block images used by both programs

will load and use the 3 block images used by both programs as well as their 32 block sign images. Flexi-draw also stores its work areas in 32 block format usable by FGM through its regular load and save routines. The method I use to import images from Flexi-draw to FGM is by using a reset button (either through Super Snapshot or a button added to the C64). When I am done with Flexi-draw I would depress the reset button, which would clear the present program, then I would load FGM into the programs create mode and sure enough as I get to the work screen the Flexi-draw images would be there (both pages). This method works with allot of other programs including GOES.

Once I ready to work it is fairly easy to shift the screen by one pixel at a time in all four directions making it simple to label components. The best feature of FGM is its versatile printing feature. Because my printer can print in various dpi FGM allows me to pick and choose both vertical and horizontal dpi (from 60 dpi to 240dpi). I usually use a 60dpi vertically by 120 dpi horizontally, allowing me access to 3 screen by 3 screen printing (each screen is equal to a 32 block file). FGM has 3 screens visible at a time. If the screens are linked 3 across then it is possible to move a half screen to left or right showing a seamless large picture instead of individual pictures. This is handy when trying to join schematic drawings or PCB layouts together and you need to have lines flow to the next screen without having a jog or missing its mating line altogether. Again this is where the zoom feature (F7) can come in handy. When the final picture is done and is printed to scale (by choosing the dpi) I can take the layout to the workshop.

In years past I would have to rub traces on a copper clad board, transposing the image from paper to the board by eye alone. Making mistakes in the placement of traces sometimes meant cleaning the board and starting over. That could cost me hours.

For the last several years I would take my (to scale) printout and have it photocopied on to a transparent sheet. Using M.G. Chemical's photo fabrication kit for PCBs I save allot of time and it is allot easier to layout the traces on the copper clad board. Their boards have a photosensitive layer. To use these boards work in a darkroom under a low light environment. Place the photosensitive layer of the board face up, then place the transparency (readable side up) on top of the board and cover it with a clean clear piece of glass. Expose the stack to ultra violet light (see M.G.'s instruction set for more details). Develop the board so the trace resist image is seen on the copper cladding. Now it is possible to etch the copper. All that is left to do is to clean the trace resist off the board, then drill the holes as necessary.

I have not gone into any great detail on the programs or the photo resist kit. It is a good idea to look over their manuals and practice using the programs. The programs are quite simple to use, but there is a lot of information to be absorbed. Ask your local electronic hobbyist store manger for more insight as to what comes with the kit and what doesn't. We learn only by trying.

Tom Luff

AmigaOne and OS4.0

Are you wondering what has happened to the AmigaOne? Here is a press release put out by the Eyetech Group Ltd. (the manufacturer of the AmigaOne) in late October, 2001.

AmigaOne & OS4.0 update

For immediate release

It's nearly November and the AmigaOne is due to go on sale at the WoA-SE in London, England on November 3rd 201 - right? No, we're sorry but the AmigaOne wont be on sale until the New Year. Is this the ultimate disaster to befall the Amiga community? Is the AmigaOne another Boxer? Is this the real end of Amiga as we know it? Certainly not.

Before you rush out and declare that Nostradamus was right in his predictions about the Amiga all along please take a few minutes to read the inside story of what has really been going on behind the scenes with the AmigaOne and OS4.0 development and why, despite all the odds, it is actually all going to happen very soon.

Amiga Inc. took over the Amiga intellectual property (IP) in December 1999, at the very height of the dot.com boom - and Amiga Inc., although not a dot.com company themselves, were very much part of the technology sector. They easily got their first round of funding - but when they needed more cash 8 months later - and as predicted in their original business plan - technology companies were about as fashionable as British beef. Even the most sensible, conservative business plans from proven companies in the technology sector failed to raise any significant cash. What is more, not only were the venture capitalists unwilling to invest but, in many cases they themselves were also fighting for survival (and this included one of Amiga's and TAO's main backers). Bill McEwen has never made any secret about how tight things were financially at his widely reported banquet speeches at St. Louis and Sacramento this year.

To their enormous credit Amiga Inc. have not only managed to survive the last 14 months on not much more than fresh air, but they have managed to deliver some - though not all - of what they intended in terms of technology and some high profile contracts. Remarkably they have also managed to

befriend some significant new investors - Amiga's future is now looking very positive. But in order to survive on a very tight budget finance spending has to be prioritised very carefully - in today's financial climate potential investors are only interested in very lean companies that think at least 20 times before committing to any expenditure. Amiga's clear priority was (and is) making the Amiga DE a success which inevitably meant that OS4's funding had to take second place. And OS4.0 is fundamental to the AmigaOne.

Unlike Amiga, Eyetech is privately financed. That means that our resources are based on past profits, and we are not set up to raise funding from venture capitalists or the public. On the plus side it means that we can take decisions quickly without investors painstakingly examining every facet of our business. The downside is that one big mistake could be disastrous for the company and our employees. Our funding of the development of the AmigaOne project was a calculated risk, but one we believed would pay us an adequate return in the medium term. We went into this venture with our eyes wide open, knowing the risks associated with the two main program dependencies which were, to a greater or lesser extent, outside our control. The first was Escena's ability to develop the custom chipsets needed for the AmigaOne. And the second was Amiga Inc.'s ability to deliver OS4.0 by the time the hardware was ready to go into production.

It is true that we had some early setbacks with the hardware development. This was mainly with the AmigaOne's PCB layout, which was not strictly speaking within Escena's field of expertise, but which was so inextricably linked with the custom chip design that putting it out to subcontract would have been both counterproductive and very expensive. And why, whilst we are on the subject, did we decide that a custom chipset was necessary in the first place? There were, and are still, three compelling reasons.

o No suitable PPC north/southbridge chipsets were available in small (less than 100k production quantities) when we started the project.

o Such chipsets even when available (in 1000's quantities) only have a supply cycle measured in months before being superceded. This would have made any small volume design based on such chips obsolete virtually immediately it was completed.

o Without a complete rewrite of the Amiga OS - rather than an incremental porting as with the whole OS4.x strategy - the ability to access the classic Amiga chipset was essential, and no commercial chipset could have provided such a bridge.

This has also been quite complex to implement, but is based on pre-tested core modules which form the core of Escena's expertise.

However in May this year, although some work had already started on OS4.0 it became clear that the Amiga Inc's had other priorities for the limited funding that they had available - that is for the DE development. This meant that the funding that was needed from Amiga Inc to finish OS4.0 was not available on schedule and this was starting to have a material effect on its development timeframe. Hope was still high that funding would be imminent, but venture capitalists do not make investment decisions lightly or quickly in the wake of a tech stock melt down. Without a guaranteed delivery time we, Eyetech, effectively suspended the development of the AmigaOne pending a resolution of the OS4.0 developments. Escena in the meantime undertook some mission-critical (and far better paid) contract work for some internationally renowned blue chip companies. And just to make it absolutely clear, I have absolutely no issues with Amiga Inc's decisions in allocating their priorities in this way - I would have done exactly the same in their position. Similarly the decision to suspend the AmigaOne development was ours, and ours alone.

Since then we have been working hard with Amiga Inc to seek a practical resolution to the development of OS4.0. After many months, and more than a few dead ends we have finally worked out a tripartite agreement between ourselves, Amiga Inc and Hyperion. This allows the development of OS4.0 to start immediately - and at no upfront cost to Amiga Inc - whilst allowing them to build on the work done in OS4.0 for the development of OS4.2 and beyond. As well as guaranteeing a path to allow the AmigaOne development to be finished and for it to go into production, it also gives an absolute guarantee of the development of the operating system for the AmigaOne beyond OS4.0. And as part of this agreement Hyperion will also be releasing OS4.0 for the CyberStormPPC accelerator for the A3/4000, which must be this years best news for owners of these Big Box Amigas.

Of course Hyperion are not developing OS4.0 alone, rather they are heading a consortium of well known and respected Amiga developers, including Haage & Partner, the Picasso96 team, Matay, Olaf Barthel and many others.

So the best news of all is that this agreement - which will finally and unequivocally fix the path forward for Classic Amiga owners everywhere - will be signed this weekend at the London-based WoA-SE show on 3rd November. It has taken many hours of negotiation to sort out the details, but now it is in place the last major hurdle to the Next Generation Amiga has been overcome. All parties are now working flat out once more to ensure that OS4.0 and the AmigaOne can now be launched in tandem early in the New Year.

Thank you all for your patience and understanding.

Alan M Redhouse
Managing Director, Eyetech Group Ltd.

To see if there is any more recent information available, check Eyetech's website at:
http://www.eyetech.co.uk/addbar.php?Address=/NEWS/

The CommodoreOne Seems Back on Track!

Jeri Ellsworth has undergone several trials and tribulations since the last Commodore Expo in Chicago (September 8th). First her stuff was stolen before she got out of town; then she lost an engine in Las Vegas while traveling cross-country. What's the old saying? If it weren't for bad luck, she'd have no luck at all!

The purpose of this article is to inform the reader that things finally seem to be settling down for her. With encouragement and support from Courtney, her good friend and now roommate, Jeri is beginning to make good progress in her efforts to revamp the CommodoreOne into a modern marvel!

In recent weeks, she has been working with the SID chip. Remember that the original only had three voices (channels) and featured analog filters that sounded differently from one machine to another. Jeri is seeking to replace this with a 16 channel (8 channels per side) stereo SID chip using digital filters.

Currently, she is having a hard time mastering the filters on her sound chip, now being called the MonsterSID. She has contacted a friend, Joel Kolstad, who has a lot of experience with sound filters, and she hopes soon to be able to finish this part of the project.

The advantage to the new digital filters is that everyones SID chip should sound alike. We will no longer suffer the disappointment of adjusting the software for machine A only to have it sound like a "sick cow" in machine B. Even at that, she hopes to create a "back door" that will allow programmers to readjust the sound of the chip to their own tastes, if they wish.

Something that strikes me as really wild is that new SID chip will have 64 Kb for memory. Remember, the original Commdore 64 had a total of 64 K, now we have the option of a SID chip with that much memory so it can carry a WAV table with sample sounds of various instruements. Thus the Commodore could be used to simulate the sound of a concert piano, a flute, or an oboe. That would be truly amazing!

Another project she is working on is to refine the PS-2 connector adaptor so that it will remap the keys in a way that is invisible to the user's software. The expectation is that many who use a PS-2 kayboard with the new CommodoreOne may want to convert it to the Commodore's keyboard layout. Jeri hopes to replace the CIA chip that controls the keyboard connector and then rewrite the look-up table for this specialized CIA chip. Thus, a special adjustment could be made that would allow anyone to convert between CBM and IBM, or QWERTY and DVORAK keyboard layouts.

A third project is to complete the floppy controller. Of course, she wants the CommodoreOne to be able to read floppy drives regardless of their format, CBM or IBM. This is something she hopes to accomplish fairly soon.

Last, but not least, she needs to install an IDE interface. You may be familiar with IDE drives which are faster and cheaper than SCSI, though not necessarily more accurate. Still, any computer introduced into today's market needs an IDE option.

The point is that when these tasks are finished, the background development on the various features of the CommodoreOne will be completle! Yes, I said stick a fork in it! This phase is will be DONE!

The next exciting phase will be to actually create a working prototype. Only then can she determine if every feature, each of which has been successfully tested in isolation, will then work together in a functioning unit. She no doubt has a challenging road ahead of her, but she feels like she's beginning to see a light at the end of the tunnel!

What is important to note that she sees no reason why this prototype can't be ready for the Expo in May. I think she may be a little bit optimistic here. However, it is good to see optimism replacing the discouragement of recent events.

Meanwhile, I hope that you will join me in supporting her work. She has asked for help in raising $2000 to finance the prototypes she must build to test this machine. So far she has collected a little more than one third of that amount. The names of those who have made a downpayment on this dream are listed on her website at **www.commodoreone.com**. It is now your turn to make a difference, if you truly support this project.

Report by K. Dale Sidebottom

Although she likes to work under cars occasionally, this picture was posed for a magazine.

Who Is Courtney?

In November, Jeri and Courtney were traveling from Oregon to Florida when the motor on Jeri's van completely quit. Jeri asked the Commodore community for help, and it responded immediately.

Truth to tell, these ladies didn't need as much help as most most of us would have. In addition to loving Commodore computers (Courtney's Amiga says Commodore, too), they like to work on cars. In fact, Jeri grew up repairing cars, so it wasn't a big deal for them to pop out the dead motor and install a new one!

Soon after they were safe home again, a Commodore user emailed the CommodoreOne mail list to ask, "I see Courtney

mentioned often in the context of the CommodoreOne and Jeri. Is he/she also involved in the development of the machine? How many people in total are doing the design/prototyping?"

Raymond Day who met them at the Chicago Expo answered, "Courtney is a *she* and is a very good friend of Jeri's. Jeri likes her a lot. I don't think she is involved in the development of the CommodoreOne."

Because *enquiring minds want to know*, I asked Courtney to send me a short bio which is included here. I think you will enjoy it. ---K.D.S.---

OH NO, NOT ANOTHER NERD GIRL!

If you attended the recent Chicago Expo or perused the CommodoreOne website within the past month or two, you may have wondered "Who's that blonde chick hanging out with Jeri?"

Well, we can start with my name, which is Courtney Hermon-Taylor. No, that's not a married name, merely a family name that I plan to be rid of in the near future. The concept of a hyphenated name seems to escape the grasp of the teleworkforce at large, something I have suffered from all of my life.

Anyway, my love affair with the old chickenlips (and I mean Commodore, not Jeri, whose lips only get *pointy* when her demo crashes) began when I was 11 or so. After hearing the marketing on the C=128 and envying the machines of my friends, I decided this was the computer I wanted. My dad was less easily convinced. Despite the robustness of my illustrated arguments (see drawing, ca. 1983), he felt the C128 was a game machine and, therefore, not as suitable for the molding of tender minds as the Apple IIe, which is what I ended up with.

Not to worry, I compensated by spending my allowance on nearly every game available for that machine. My all-time favorite was Wizardry. I still play a somewhat more modern version of it on the Amiga.

Ah yes, the Amiga. When I went to film school at the Rhode Island School of Design, though it dates me to admit it, the Amiga Video Toaster was still the best thing since string cheese. I learned to animate with DeluxePaint IV. I've many a fond memory of the Amiga Lab. So many Amiga 2000s all in a row!

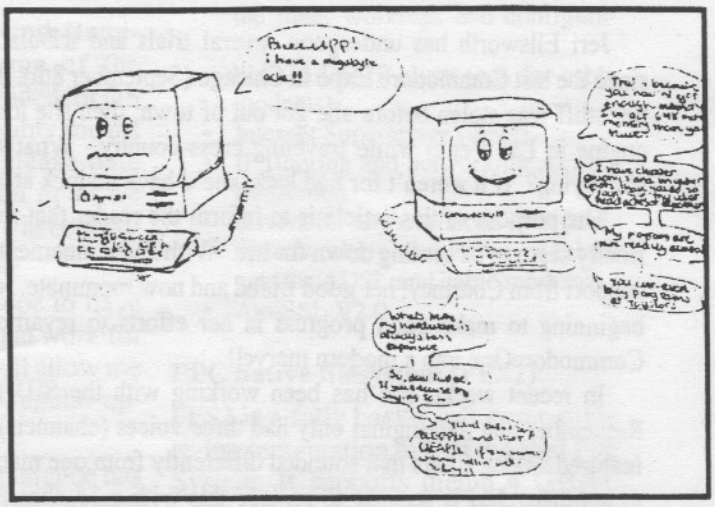
Those were the days! I didn't own my own Amiga until the recent advent of eBay, however. I now have a tricked out A2000 with a screamin' fast 040 processor, and an A3000 given to me for free by a nice computer freak in South Miami.

I've another thing to thank the Amiga for in addition to fond scholastic memories and games. It was the Amiga that led to the eventual acquaintance of Jeri and myself. We met at this past Gateway Amiga show in April 2001, St. Louis. (You all know how much fun she is to talk to.)

These days, when I'm not vainly trying to fix my car, I pretend to help Jeri on the CommodoreOne. I mostly hinder, though. ;-)

Court

CourtToon



I am fascinated by the fact that Courtney wanted a C128 so badly that, as a child, she drew up her own "motivational chart." Unfortunately, her father, *Mr. Meanie*, failed to follow her good advice. Yet, she's kept it with her for the better part of 18 years. In case you can't read the text inside the bubbles, it is written below.

APPLE IIe: "Bleeeiip! I have a megabyte ache!"

COMMODORE 128: "That's because you haven't got enough memory! I've got 64K more memory than you have.

I have cleaner graphics and brighter colors than you do, so I won't give my user headaches or eyestrain.

My programs are readily available.

You can even buy programs at toy stores. What's more, my hardware is always less expensive.

So, dear two-ee, if you'll excuse my saying so...

You'd better stop BLEEPIN' and start CHEAPIN' if you wanna continue selling well. So long!"

Fall Back in Time....

by Bruce Thomas

Yes, it is that time of year again. (At least, it was when he wrote the article. :-)

At least for most of us in North America, that is. The end of Daylight Savings Time. Tonight is when we regain that hour we lost when we set our clocks ahead in the spring.

I don't know about you but, I'm resetting my clocks before I go to bed. That includes all of the clocks in my CMD devices on my Commodore computers.

Let's see, two FD Drives, one SmartMouse, one Hard Drive and one RAMLink. That's five devices altogether. Lots of time spent setting clocks and trying to get them all close to the same time...unless you are a GEOS user. *Then it is very easy!*

Fire up GEOS, load GeoDOS (V2.95), and select the Tools Menu. From the System menu choose the 'Set GEOS RTC-Time' button.

continued on page 10, column 2

JOS plus CLiPS equals =WiNGS=

compiled from various reports by Rolf Miller

(*Editor's Note: This article is presented as a matter of interest in what is taking place among other Commodore users. Any reader wanting more detailed information is encouraged to visit the Web sites herein listed.*)

JOS stands for Jolse Operating System. Jolse is the first name of its creator, Jolse Maginnis. JOS is a new Operating System (OS) in development for SuperCPU enabled Commodore 64's with at least 1 Megabyte of RAM.

CLiPS is also a new OS being developed for the SuperCPU equipped Commodore 64. Its creator is Chester Kollschen.

=WiNGS= is the name chosen for the OS which, it is hoped, will result from combining JOS and CLiPS.

The OS is what makes a computer behave the way it does. The 64 comes with a built-in OS along with BASIC. This built-in OS, however, can be switched out and another loaded in its place. The use of GEOS (Graphical Environment Operating System) is an example of this.

Up to this point in time, other Operating Systems created for the 64 stayed within the 64's 8-bit architecture. This is understandable because that architecture is an integral part of the 64's hardware configuration. However, adding CMD's SuperCPU to the 64, which allows running at 20Mhz instead of the 64's normal 1Mhz, effectively alters that configuration. JOS takes advantage of this and operates as a 16-bit OS.

JOS is unique in another way. It combines the use of both the CLI and GUI modes for doing things on the 64. CLI stands for Command Line Interface. GUI stands for Graphical User Interface.

When the Commodore is turned on and shows the READY prompt, it is sort of like a CLI. That is, commands are directly typed and executed by pressing the RETURN key. Those who have used a UNIX shell in telecommunications, or Maurice Randall's geoShell in GEOS, or CP/M on the 128 have experienced the CLI way of doing things.

GEOS illustrates the GUI way of doing things. Little graphic images (icons) represent applications or files. There are also labeled buttons and tool bars. To invoke action, the icon or button is pointed to and "clicked on" using a joystick or mouse.

There are advantages to both methods. The GUI is generally considered easier to use because it doesn't involve typing commands, which must be precise as to spelling and syntax, and are sometimes rather "clunky." And because the GUI is graphical in nature, it is the obvious choice when working in the graphical environment. On the other hand, the GUI is limited to those applications incorporated in it, whereas the CLI can access anything available on the computer. And the CLI environment is generally more friendly when working with text-based applications.

Therefore, combining the CLI and GUI way of doing things into one OS provides for taking advantage of both methods. And it is this aspect of JOS which prompted visions of JOS and CLiPS joining forces. (CLiPS primarily focused on the GUI concept.)

Since both JOS and CLiPS are currently works in progress, and their design allows for revisions to accommodate innovation, it is thought their evolution into a single OS will occur quite naturally. And considering what they offer today, it is not difficult to imagine the features which the combined effort will spawn.

JOS currently supports most Commodore disk drives, including CMD hard drives, and the IDE64 interface which allows the Commodore to use IDE hard drives. Also supported are the 1351 and CMD Smart mouse, high speed modems connected with CMD's Turbo232 or SwiftLink or with the IDE64 serial device DUART, some SID chip and stereo board applications, and various printers. A few of the applications currently present in JOS include four screens (including 80-column modes) from within which different programs can be run simultaneously (multitasking), a text editor called NED, a sound player, modem applications including PPP dialer and IRC client, a JPEG viewer and, naturally, directory and other system information displays.

CLiPS likewise features support for CMD drives and multitasking. It also provides for Plug and Play hardware detection. And it possesses an extremely fast GUI offering very powerful attributes, including a configureable desktop and much more.

By themselves, JOS and CLiPS expand the horizon of the SuperCPU driven 64. The results of merging these two operating systems into =WINGS= will no doubt take the 64 to new heights. And the capacity to accommodate innovation which is built into this effort will keep the 64 on the leading edge of the ever changing technology world.

Further information is available at the following web sites.

http://jos64.com
http://jos.sweetcherrie.com
http://www.clips64.de
http://www.protovision-online.de
http://www.vision64.de.vu
http://www.king.igs.net/~billnacu/jos.html

This photo is found on on Greg Nacu's website

HOW THE COMMODORE IS USED
BODY MASS INDEX (BMI)

One of the reasons a lot of folks maintain a Commodore 64 (or 128) is that it can be quickly programmed to accomplish what might otherwise be awkward. For instance, the Surgeon General recently called on Americans to "eat less and exercise more." In other words, he thinks Americans are lazy and fat -- 62 percent of them anyway. He based his statements on what is called the Body Mass Index (BMI). A BMI of 25 or over is considered overweight. The formula for calculating this index uses weight and height.

When the story appeared in the newspaper, it displayed a BMI chart. Unfortunately, it listed weight in ten pound increments and height in two-inch increments. Apparently this is not acceptable to the female of the species. As one girl said, "I am 5 feet, 3 and 1/4 inches."

Nor is the formula to figure the BMI convenient. The paper listed it as *weight in pounds times 703 divided by height in inches squared.* Math is also a bane for this girl. "Can you figure this for me?" she asked.

Out came the calculator. "Okay now, that is your weight,?".

Absolute silence.

At this point, the male of the species is cautioned to take a detour. So, *on* went the Commodore, and a little programming ensued so she could calculate her BMI in private.

First, her weight would be needed.

```
10 INPUT"WEIGHT";W
```

Then her height.

```
20 INPUT"HEIGHT AS FEET,INCHES";F,I
```

Then calculate height in inches, square it, and calculate BMI.

```
30 H=(F*12+I):H=H*H:B=W*703/H
```

Then display it.

```
40 PRINT"BMI="B
50 PRINT"BMI SHOULD BE BELOW 25"
```

This worked well, except that when finished, she turned off the computer to hide the results. In other words, it is a good idea to save little programming efforts before turning the keyboard over to others. However, if she really wanted to conceal it, she shouldn't have immediately begun looking through a diet book.

The newspaper also listed the formula to determine acceptable weight as: 25 divided by the result of 703 divided by inches squared. Further, a general rule given for maintaining current weight advised restricting daily calories to 13 times body weight, and to lose weight, reduce the daily caloric intake to current weight times 10. This prompted adding to the program.

Calculate the calories to maintain weight and display it, unless the BMI equals of exceeds 25.

```
60 C=W*13:PRINT:IF B=>25 GOTO 75
70 PRINT C"DAILY CALORIES WILL MAINTAIN":END
```

If B=>25, go determine the acceptable weight using 25/(703/H). Also calculate the daily calories to bring about a weight loss.

```
75 X%=25/(703/H):C=W*10
```

Then display the weight to lose by subtracting the acceptable weight from the current weight, and display the daily calories to achieve it.

```
80 PRINT"YOU SHOULD LOSE"W-X%"POUNDS TO"X%
90 PRINT"REDUCE DAILY CALORIES TO"C
```

Of course, there is a whole lot more to diet than calories. So there is no advice here to embark on a diet without considering the other factors.

(The following is the resulting routine edited for this article. The listing appears in lower case to avoid confusion between letters and numbers.)

```
5 print chr$(147):print"body mass index"
10 print:input"weight";w
20 print:input"height as feet,inches";f,i
30 h=(f*12+i):h=h*h:b=w*703/h
40 print:print"bmi="b
50 print:print"bmi should be below 25"
60 c=w*13:print:if b=>25 goto 75
70 print c"daily calories will maintain":end
75 x%=25/(703/h):c=w*10:print
80 print"you should lose"w-x%"pounds to"x%
90 print:print"reduce daily calories to"c
```

If weight is entered as 160 and height as 5,6 the BMI will be 25.8218549 with the recommendation to lose 6 pounds to 154 by reducing daily calories to 1600.

To prove the matter, entering 154 as the weight for 5,6 will yield a BMI of 24.8535354 and a recommendation of 2002 daily calories to maintain the weight.

---R.L.M.---

Back in Time...continued

GeoDOS scans your entire system looking for RTC (Real Time Clock) Units. If you are running GeoDOS from GEOS 64 or Wheels 64, it will even find the clock in your SmartMouse (which is the time it should be displaying, if you have one).

Press the Edit button at the top of the screen and a cursor will start flashing on the Date. Use the Left/Right Cursor keys to move the cursor down to the time and change it back one hour (and remember, at midnight there is no hour 24...use 00 instead). Once you have changed the time, press Return.

Have a look at the time display along the bottom of the screen and you will see that it has been changed to the time you set. All in perfect sync and all set from one program. Just one more little nicety of the miracle called GeoDOS.

—R.B.T.—

THE TRAILING EDGE OF TECHNOLOGY

by Rolf L. Miller, Managing Editor

This is a story about a lady who phoned in a panic, needing some mailing labels printed. It seems she tried, but they gummed up her laser printer. (Pressure sensitive mailing labels can be used in laser printers ONLY if they are the right type.)

Now, this woman knows that the main computer system in this office bears the name Commodore. And she often makes fun of the "antique." So the fact she called indicated her desperation was real.

Skipping the long discussion of guiding her through the process of manipulating the IBM-compatible mailing list data so she could email it to me, the story jumps ahead to when she walked into the office to pick up the labels. The old daisywheel printer, which sits a little out of sight in a corner, had just begun printing them, filling the air with its *rat-ta-tat-tat*.

"What's that!" she asked with a mischievous look at the Commodore.

"The daisywheel."

Rolling her eyes, she responded with one of her "antiquity" comments, referencing the quiet operation of her laser printer. Then she noticed it was printing her labels, and her face pinked slightly. It's thought she'd have learned her lesson by now because she has previously lost these "jousting" bouts.

There is no doubt that daisywheel printers are on the trailing edge of technology. It is suggested, however, that the trailing edge of technology does not refer just to the use of older equipment. Nor is age the only determining factor. Rather, the trailing edge of technology refers to the utilization of any older machine which is used as originally designed to accomplish today's needs.

For example, the Commodore PET dates back to the late 1970's. Yet, there are those who still use these "dinosaurs" to do word processing, maintain business records, and accomplish other text-based applications. In this instance, then, it can be said that the PET is on the trailing edge of technology.

On the other hand, no reports are known of a PET utilizing a Graphical User Interface (GUI) like GEOS. Consequently, if the need concerns graphics, it is fair to say that the PET has fallen off the trailing edge of technology.

But if it's assumed, for the sake of discussion, that someone souped up a PET so it could handle graphic applications, it would certainly be viewed as a leap forward on the edge of technology. Yet, an unexpanded stock Commodore 64 using GEOS with a single 1541 disk drive is viewed as barely hanging on to the trailing edge.

There are some things for which it is believed the Commodore 64 (and 128) will never fall off the trailing edge of technology. Games come to mind. The evidence for this faith is the fact that many 64 users who moved to IBM-compatibles took their 64's with them in the form of emulators so they could continue playing the games. And today sees some of those folks reacquiring 64's in order to renew their experience with the real thing!

And, like the PET, the 64 and 128 can easily accomplish real-world word processing, business records, and other text-based applications. And it doesn't requires anything beyond the original intent of the 64 and 128 to add a modem and run telecommunication software capable of accessing the internet in the text environment. And while the GEOS experience is greatly enhanced with innovative additions, the user does not have to exceed original capabilities of the 64 or 128 to produce acceptable results.

But just why this insistence to stay on the trailing edge?

It's not supposed that the reason given here will provide an answer for all who maintain trailing edge technology. But as viewed from this desk, as long as the stock 64 continues to produce most of the work required in this office, it just doesn't make sense to learn new ways or spend new money to do the same thing, i.e. duplicate what is already being accomplished!

---R.L.M.---

AmigaOne Timeline

This information comes from FidoNet and provides an insight into the development process of a new computer. The expected availability of early October 2001 was not met - BUT - see the AmigaOne Update article elsewhere in this issue.

Area Amiga.AMIGA1: AMIGA
From: Craig Hutchison
To: All
Jun-28-01 18:27:06
Subject:
http://www.eyetech.co.uk/amigaone/timeframe.php

AmigaOne : Timeline
Updated 27 June 2001

It's now several months since this timeline was last updated as most of the day-to-day news items have been posted to the http://www.yahoogroups.com/group/amigaone mailing list. However lots of things have happened since we launched the AmigaOne project which have had an influence on the specification of the final product and therefore the timetable leading up to delivery.

The main change has undoubtedly been the decision by Amiga to use the current Amiga OS as the basis for a home server solution and as an alternative (to Windows and Linux) hosting environment for the Amiga DE.

This has meant that when it is first launched the AmigaOne 1200 will be a substantially improved product to what was originally envisaged. The majority of the improvements come from Amiga's commitment to develop OS4.0 specifically to run on the AmigaOne-1200 at launch. This is far more than the 'fixed' version of OS3.9 that was originally envisaged (pending the development of the native PPC Amiga DE implementation that was originally planned). The new OS4.0 will come with a high performance file system, virtual memory, high performance PPC-native TCP/IP stack, 1GB main memory support, UDMA IDE and SCSI and ethernet drivers and Picasso96 2D retargetable drivers for VooDoo3 PCI/AGP and Matrox G450 PCI/AGP & G550 AGP only graphics cards. Warp3D/Mesa 3D drivers will also be shipped with the first release of OS4.0.

Sound card (with Paula emulation), USB (keyboard and mouse) drivers will follow as downloadable updates - ie you wont have to wait until OS4.2 (which we don't expect to ship until mid 2002) for these facilities.

The whole AmigaOne-1200 project is suddenly much bigger and very much better as a result. The small downside however is that during the several weeks leading up to the OS4.x announcement (at St. Louis at the beginning of April) and more particularly since then, we and Amiga Inc have had to redirect much of our efforts to carefully defining, planning and allocating tasks and responsibilities to OS4.0 development and integration with the A1-1200. The extra work involved has also, inevitably, meant that timeframes have slipped. Although this has also meant that the end time for hardware delivery has moved back actual progress has, so far, been ahead of plan with the development currently looking like it will come in at less than the estimate for elapsed engineering time. As reported earlier in the AmigaOne FAQ's, beta testers will not now be needed for the hardware which is being independently tested/validated as development progresses.

As most people probably know, Continental Europe (where most of the AmigaOne and OS4.0 development is being carried out) closes in August, making it a bad time for beta testing and the associated feedback. As you'll see below, application software/OS4.0 beta test boards are therefore now scheduled for release at the beginning of September. Manufacture of production AmigaOne1200 boards will now start in mid September, and be released for distribution as soon as OS4.0 is signed off for release in early October.

Timeline summary:

Item	Date
Mk 2 PCB production and testing	Complete
All major custom chip logic building block development and testing	Complete
CPU module design	Complete
Custom chip PCI development	Complete
Custom chip memory and CPU controller integration	June/July
Bootstrap, flashrom maintenance and basic drivers implementation	July/August
OS4.0 build and 68K emulator porting/testing	July/August
Application software beta tester systems shipped	End August/Start September
AmigaOne 1200 boards into production	Mid September
Application software and OS4.0 beta test sign off	End September
AmigaOne-1200 boards and OS4.0 available to dealers	1st week October

Cache Ya,
Craig.

Amiga Emulations

In early December, 2001, some FidoNet correspondence (primarily between Craig Hutchinson and Todd Sullivan) neatly summarized the current status of several Amiga emulators - that is, programs which run on non-Amiga computers and emulate the Amiga computer. The FidoNet messages have been edited to remove comments not relating to Amiga emulation as well as taglines and message numbers (message numbers change as new messages are added and would only be relevant if all the messages had been downloaded on the same day - which they were not). As well some minor text corrections and clarifications have been made.

Area Amiga.AMIGA1: AMIGA
From: Craig Hutchison
To: Todd Sullivan Dec-07-01 17:14:16
Subject: date question

G'day Todd,

In a message dated 05 Dec. 01 you wrote to All:

MG> There's also one or two 'Amiga clone' window manager programs out there for Linux...

TS> UAE and Amiga Forever. Both are emulations.

TS> Have you got a URL for either or both of these?

TS> Can anyone help Steve, and in the meantime correct any of my errors?

All of 'em are emulators. UAE (originally the 'useless Amiga emulator' under Unix) went on to become WinUAE and is perfectly legal as long as you supply the ROM image and OS. It of course runs as a Windows task.

AmigaForever is distributed by Cloanto with Amiga Inc.'s blessing and also runs from inside Windows with the usual performance hit, but includes emulation of the original Amiga chipset. (Asha is reportedly using this one)

The newest is AmigaOS-XL, distributed by Haage & Partner. It provides two different emulations.

The first is Amithlon which uses a Linux micro-kernel to boot your x86 PC into a 68k emulation mode. From there, AmigaOS is loaded just like on a real Amiga. You can even partition off part of your PC's disk and give it to the Amiga. Amithlon doesn't use any Amiga chipset emulation, (so anything hitting the hardware is out) but instead uses the Amiga RTG system to directly interface with your PC's hardware. Picasso96 running on a 32MB G-Force2 anyone? There's not huge amounts of hardware support for Amithlon as yet, but each week brings new updates.

The second offering is AmigaXL, which like AmigaForever and WinUAE depends upon a host OS. In this case they've utilised QNX. Unlike Amithlon, AmigaXL truly needs the underlying OS to get most things done. All networking is done through QNX, as is the sound and GFX handling.

Software Hut and a couple of other US distributors are advertising both AmigaForever and AmigaOS-XL for sale. UAE and WinUAE are available on the 'net. Just remember to bring your own OS.

Not ever having tried to emulate anything with anything. I can't give you too many more details.

Cache Ya,
Craig.

Area Amiga.AMIGA1: AMIGA
From: Todd Sullivan
To: Craig Hutchison
Dec-08-01 16:02:06
Subject: date question

Lots of good info, but were are the urls?

Todd Sullivan

Area Amiga.AMIGA1: AMIGA
From: Craig Hutchison
To: Todd Sullivan
Dec-10-01 18:04:14
Subject: date question

G'day Todd,

In a message dated 08 Dec. 01 you wrote:

TS> Lots of good info, but were are the urls?

As you asked so nicely, I did the legwork and found all I could.

_AmigaOS-XL

http://www.haage-partner.de/news-e.html *sales/information*

http://amithlon.net *support*

_AmigaForever

http://amigaforever.com
sales/information/support

_WinUAE

http://sourceforge.net/projects/winuae *information/downloads*

There's also several mailing lists on http://yahoogroups.com covering each of these emulation systems. Beware, most have VERY high traffic levels at the moment.

Cache Ya,
Craig.

Hyperion develops Amiga OS4.0

This Ben Harmans Press release was posted on the Amiga News Network (ANN).
Leuven, Belgium, January 21, 2002.

Let me start off by wishing everybody in the Amiga community all the best in 2002! As you know, on November 1, 2001 Hyperion Entertainment entered into a license agreement with Amiga Inc. to produce Amiga OS 4.0 for PPC based systems.

Since my presentation in Cologne at the Amiga 2001 show on November 17-18, very substantial progress was made which I am now ready to share with you.

Some of you have expressed some misgivings about the lack of progress reports on OS 4.0 development but I hope I can count on your understanding as all of us have been extremely busy, even through the holiday season, to bring you what is unquestionably the most ambitious OS upgrade since Amiga OS 3.0.

Now I know that many of you are sceptical because of the scope of the project and because similar promises were made in the past.

To those people I would like to point out that Hyperion Entertainment does not enter into contracts lightly and that we have a track-record carrying out commercial development and contract-work for Windows, Mac, Linux, Amiga and Amiga DE/Elate.

We have brought together a truly impressive development team of some 25 people building on the OS 3.5 and 3.9 development team whilst adding several well-known and respected Amiga developers to the mix.

I'm very pleased to say that Dave Haynie has agreed to serve as a technical consultant.

You'll be hard-pressed to find a more experienced team for the job!

The feature-set of OS 4.0 has now been finalised to a large extent. We can't guarantee that every single feature listed here will make it in the initial release of OS 4.0 but this the feature-set that we have contractually committed to delivering.

You will also note that for the first time in many, many years very substantial work is being done on Intuition, one of the core elements of the Amiga OS. Having a PPC native version of Intuition available will make a very noticeable difference speed-wise.

We intend for OS 4.0 to be disk-based or at least partly disk-based and partly flashrom based even for current Amiga's. More about that in a later update.

We also intend for OS 4.0 to be installed effortlessly from CD and from scratch without the need for an existing OS install.

As we have taken on more work (Intuition etc.) and folded some of the functionality originally planned for OS 4.2 into OS 4.0, this inevitably means the original February release-date might slip somewhat but all in all we believe that the end-result will be technologically more satisfying.

Come end of January, I hope to have the biggest chunk of the legal work for OS 4.0 behind me which will allow me to provide you with more regular updates.

I know full well that your patience has been sorely tested over the last years so I understand your impatience and even your scepticism but I can assure you that the Amiga OS is in good hands and that we will deliver.

In closing, I would like to invite everybody out there who (out of an understandable frustration with the neglect of the Amiga OS by its respective past owners) decided to take matters in his own hands, to work with us, rather than against us.

Ben Hermans, LL.M.
Managing partner Hyperion Entertainment VOF

Amiga OS 4.0 provisional feature list

Exec Second Generation (Exec SG)
Exec is the kernel of the AmigaOS and is currently written in 68K assembly. Exec is being re-written in C and new functionality will be introduced to allow the deployment of OS 4.x on any suitable PPC hardware.

The following features are planned:

- Hardware abstraction layer
- Virtual memory
- New library interface
- Resource tracking and management
- Optional memory protection
- WarpOS backwards compatibility

68K "Just in Time" emulation

PPC native TCP/IP stack

- implemented as a single shared library
- compatible with the Amiga standard 'bsdsocket' API, as defined by the AmiTCP product
- enhanced API for more control over the inner workings and configuration
- built-in DHCP client (e.g. for cable modems)
- Internet Superserver (inetd)
- IP filtering and networking address translation
- drivers for asynchronous PPP (dial-up networking) and PPP over Ethernet (for ADSL and cable modems)
- AmiSSL V2.0

PPC native filesystem (FFS2)

FFS2 is a fully backwards compatible re-implementation in C of the Fast File System. It supports media 4 GByte, and a new variant of the file/directory name storage format which allows for long file names (up to 108 characters).

Recovery and Salvage tools
Comprehensive suite of salvage and recovery tools including Salvage, Undelete, Unformat,Repair, RDBSalv, ReOrg/Defrag, Check Integrity etc.

PPC native RTG system
The PPC native RTG system (based on Picasso 96 V3) allows for the use of modern graphics cards on the Amiga.

Drivers for all current Zorro II/III cards as well as drivers for the Permedia 2/3, Voodoo 3,Matrox G450/G550 and ATI Radeon are planned. An arithmetically optimised PPC native version of layers.library is alsoplanned.

Warp3D
New version of Warp3D, the powerful yet low-level 3D API which is both available on the classic Amiga and intent/Amiga DE and which allows developers to rapidly migrate 3D content between both platforms.
Drivers for Permedia 2/3, Voodoo 3, Matrox G450/G550 and ATI Radeon are planned.

OpenGL 1.3 support (Mesa 4.0)
OpenGL is a cross-platform (Mac, Linux, Windows, AmigaDE etc.) high-level 3D API originally developed by Silicon Graphics.

Support for OpenGL 1.3 will be provided by porting the open source project Mesa (which now passes all SGI compliance tests) which will sit on top of Warp3D so that graphics-card

functionality not currently offered by the OpenGL API may be supported nonetheless.

PPC native RTA system (AHI)
A Retargetable Audio System allows the use of plug-in soundcards (PCI or Zorro II). AHI by Martin Blom is currently the de facto standard on the Amiga and a PPC native version will be offered with support for a wide variety of soundcards including but not limited to all current Amiga soundcards and the Soundblaster 128 and Live (EMU10K1) cards.

PC native Intuition and Reaction
Reaction is the BOOPSI based GUI system for the Amiga, introduced in OS 3.5 and extended in OS 3.9. Moreover a new preferences system will allow the user to change more aspects of the GUI.

Other features:

- Drag and Drop support
- New "ghosted" look

Intuition will sport the following new features (more planned):

- New DrawInfo pens
- Enhanced window borders
- Resolution-adaptive system gadgets
- User-selectable styles for system glyphs and 3D frames with support for external plug-ins
- Configurable look for proportional gadgets
- New-style (3D recessed) "disabled" look for gadgets where applicable
- Gad-Tools enhancements (pop-up capability for cycle gadgets etc.)
- Full-user control of Workbench palette

SCSI drivers for SCRIPTS based SCSI controllers .

WarpInput API (working title)
WarpInput is an API for multimedia controller devices (akin to DirectInput on Windows) which allows a programmer to provide support through one API for a wide variety of input-devices such as keyboard, mouse, joysticks (analog and digital), track-ball, Playstation controller etc.

Minimal USB stack

PPC native datatypes

New HDToolbox replacement

Support for TrueType/OpenType fonts.

History Revisited ... How Much Ram Do You Need?

Prior to the Amiga's introduction in 1985, there was much speculation on its specifications and rumours were rampant. What follows is some early discussion (downloaded recently from an Amiga Newsgroup) which lays particular stress on the amount of memory that would be available and questions the need for more.

Message 1 in thread

From:LAVITSKY@RUTGERS.ARPA
Subject: Commodore's Lorraine
Newsgroups: net.micro.cbm
Date: 1985-02-19 14:22:45 PST
From: The.Uninformed

Hello all,

I'm just wondering about what happened at the recent Commodore show discussed on the board. How was it? Specifically, I'm looking for information about the new Amiga Lorraine. Was it on display? Could you use it, or was it kept under lock and key? In any case, all I've heard is rumors about what seems to be a great machine. Can anyone confirm or deny the following:

1) Turbo Pascal, built in. The Macintosh boards on the nets have been busy with the fact that development of Turbo Pascal for the Macintosh has been put on a back burner in favor of the version for the Amiga.

2) 8 Mhz 68000 cpu with expansion slots able to handle 7 Meg. I know the 68000 can address much more, and 7 Meg is a lot of memory, but why stop there?

3) As for graphics and sound, I've heard 640x300 resolution with 4096(!) colors. Seperate rgb, composite video AND rf modulated signals. Also, there are supposed to be 256 sprites available.

Could this mean a graphics coprocessor? For sound there are supposed to be 16 channels with stereo sound (could this mean 2 main sound outputs?).

4) Release date is purported to be sometime during the early bits of summer. The cost I last heard is under $700 with one disk drive. Is the drive a programmable format drive? - 3.5 inch???

5) Finally, I understand that it will run under a Mac-like environment replete with mouse. This at least seems to be a good move, as I like the Mac's OS (I/O speed not inclusive).

By this time, I'm sure all of you who have seen the Lorraine are screaming bloody murder about what I've said, but I have no other source of info except for the rumor mills. Please, I (and the rest of you I'm sure) would like to know what's happening with this machine. Even if the above rumors are just rumors, and if the Atari 'Jackintoshes' make the impact they're supposed to, it's going to be one hell of a summer for computers.

One more thing for the rumour mill. I heard from a friend with sources inside AT&T that AT&T is trying to buy out Commodore. What gives? Did they really buy 5% of the stock already? Do they want it for the chip manufacturing facilities? ...

Jonathan D. Trudel
Trudel@ru-blue.arpa

Message 2 in thread
From: Doug Pardee
(doug@terak.UUCP)
Subject: Re: Commodore's Lorraine
Newsgroups: net.micro.cbm
Date: 1985-02-21 08:45:55 PST

> 2) 8 Mhz 68000 cpu with expansion slots able to handle 7 Meg. I know the 68000 can address much more, and 7 Meg is a lot of memory, but why stop there?

I can't confirm/deny this. But even if it's so, I don't understand your problem with it. At the current cost of memories, 7 Meg will cost the manufacturer over $3000 in memory chips alone. What with the support chips, board costs, and markups, you could expect to spend

around $15,000 to $20,000 for 7 Meg of memory. Even if the price of memory drops by 2/3, you'ld still be spending over $5000 in memory for your $700 computer. If you had that kind of bucks, you'ld probably buy a more powerful machine to plug the memory into.

Why stop? Each slot connector costs money. Address decoding chips cost money. The more slots, the larger the PC board, and that means more expensive board, bigger and more expensive housing, more problems with board warpage. And bigger power supply (memory chips *love* power) and more cooling fans (memory chips *dissipate* that power).

Next question: what on earth would you *use* 7 Meg for? Certainly you aren't going to be writing programs that large. And 7 Meg of data is about 2000 typewritten pages worth. I mean, we're talkingabout a *home* computer here, not something that Bank of America is going to use to run a 500 terminal online database.

Doug Pardee -- Terak Corp. -- !{hao,ihnp4,decvax} !noao!terak!doug

Message 3 in thread

From: Ravi Kulkarni (ravi@eneevax.UUCP)
Subject: Re: Commodore's Lorraine
Newsgroups: net.micro.cbm
Date: 1985-02-24

>From:LAVITSKY@RUTGERS.ARPA
>From: The.Uninformed

How true!! But then when you are in the rumors business you can take it for granted.

>1) Turbo Pascal, built in. The Macintosh boards on the nets have busy with the fact that development of Turbo Pascal for the Macintosh has been put on a back burner in favor of the version for the Amiga.

This is apparently true since it came straight from Philipe Kahn(sp?) the author of Turbo Pascal. It is certainly an advancement over Basic. He might also be doing the OS which is going to be integrated in with GEM.

> 2) 8 Mhz 68000 cpu with expansion slots able to handle 7 Meg.I know the 68000 can address much more, and 7 Meg is a lot of memory, but why stop there?

Lot's of memory implies several things. If you are going to have several megabytes you will need at least some form of parity checking like the IBM pc. Fast I/O and a hard disk almost become necessary otherwise the wait to fill memory will take forever. Efficient use of megabytes of memory almost certainly implies a multi tasking environment. If Commodore has added an MMU they almost certainly have had to introduce wait states (foregoing costly alterernatives) slowing things down. If you think Commodore's (the designer of the slowest disk drive in the world and the bringer of sparkle to our application programs) going to add any of these goodies you are a bigger sucker than I thought. Oh well, I guess we can always hope.

>3) As for graphics and sound, I've heard 640x300 resolution with 4096(!) colors. Seperate rgb, composite video AND RF modulated signals. Also, there are supposed to be 256 sprites available. Could this mean a graphics coprocessor? For sound there are supposed to be 16 channels with stereo sound (could this mean 2 main sound outputs?).

This could be the saving grace for the Amiga even if Commodore manages to muck up everything else. The graphics chip set that is supposed to be used (originally developed for Atari and now under litigation) is very exciting. It is supposed to support raster ops in hardware and have support for animation. The 4096 colors and 640x300 resolution is more likely to be a palette of 4096 colors with only a few available at any one time (probably similar to Atari's GTIA chip). The resolution is more like 640x200 so it can drive TV sets and standard analog RGB monitors.

>4) Release date is purported to be sometime during the early bits of summer. The cost I last heard is under $700 with one disk drive. Is the drive a programmable format drive? - 3.5 inch???

I think cost is likely to depend on whether or not they include slots. If they do I have a feeling it will be more like a $1000 with about 128k of ram and a disk drive

I certainly hope the Amiga is a successfull machine but, if I seem a bit sceptical it is because of my past experience with the C64. I am really rooting for both Commodore and Atari as right now the only alternative for people wishing to upgrade is an IBM pc (curse their segmented architecture) or an Apple MAC which has it's own problems for $2000. I don't want to suggest that the Atari and Commodore machines don't have problems but, somehow they are easier to put up with knowing the relative costs of the machines.

--

ARPA: eneevax!ravi@maryland
UUCP: [seismo,allegra]!
umcp-cs!eneevax!ravi

Message 4 in thread

From: @RUTGERS.ARPA :LAVITSKY@RU-BLUE.ARPA (@RUTGERS.ARPA:LAVITSKY@RU-BLUE.ARPA)
Subject: Re: Commodore's Lorraine
Newsgroups: net.micro.cbm
Date: 1985-02-24 12:20:55 PST
From:Eric<LAVITSKY@RU-BLUE.ARPA>

Well Doug Pardee replied about the Lorraine: *about the cost of RAM chips*

Sure, you could expect to pay that much from any *other* manafacturer. Don't forget, Commodore can make their own chips (MOS Technology) . I bet they could offer a 1 Meg upgrade for ~$300... that's only ~$1800 over the cost of the original machine (for 7 Meg). Of course they would have to be really geared up for production of 256k RAMs. Just look at a chip like the SID - Commodore charges ~$20 to dealers for these chips seperately along with 6526s, and VIC IIs - if these chips

really cost Commodore near that much the 64 would cost over $500 (it did at first, but when production picks up, blam goes the price). I'm not saying that they will offer memory at such low prices, but they are the ones who can do it. The 64 is 64k of memory ++ and it costs around $130 now. Strip off the support chips and processor etc. and how much do you think the RAM costs them?

>Why stop? Each slot connector costs money. Address decoding chips cost money. ----text removed--- more cooling fans (memory chips *dissipate* that power).

Well, no one knows for sure what kind of scheme or design they're gonna use to house the thing... hopefully it'll be a sexy functional design.

>Next question: what on earth would you *use* 7 Meg for? Certainly you aren't going ---------text removed ---------- a 500-terminal on-line database.

What could you use 7 Meg for? - How about a Multi user system based on UNIX? Use it in the office, for data sampling, in a school... Picture as many RAM disks as you could ever need... running your favorite game in one window and your terminal program in another. The Lorraine is supposed to be Commodore's *High* end machine, they want to compete with Apple and IBM. No one says you have to dish out the money for 7 Meg either. Start with 512K, if you want more it's available. It can be personal, educational, business, industrial or scientific - If it starts with everything you need at under $700 (list - remember what can happen to the price after it hits the shelves) then expansion capabilities make it all the more attractive - It'll be nice to know the capability is there.

Eric Lavitsky,
Maintainer of Commodore 64 Kermit.
ARPA: LAVITSKY@RUTGERS
UUCP: ...{seismo,ut-sally,harvard,umcp-cs}!topaz!eric
SNAIL: CPO 2765, CN 700
New Brunswick, NJ 08903

Message 5 in thread

From: Doug Pardee (doug@terak.UUCP)
Subject: Re: Commodore's Lorraine
Newsgroups: net.micro.cbm
Date: 1985-02-26 09:02:39 PST

> Don't forget, Commodore can make their own chips (MOS Technology) .

True. But so far MOS Technology has shown its strength to be in making special-purpose chips like SIDs and VICs. They really trailed the industry in coming out with 64K DRAMs. For the first two years the C-64 was made with outside-vendor 64K DRAMs. And since 256K DRAMs seem to be done exclusively in CMOS while MOS Technology's expertise and manufacturing capability is in NMOS, it'll be a few years before MOS Technology is producing 256K or 1M DRAMs. By then the Lorraine will probably be obsolete (from Commodore's point of view).

Also, so far Commodore has stayed away from 'upgrade' kits. But then, Jack Tramiel isn't running the show any more, so who knows.

> What could you use 7 Meg for? - How about a Multi user system based on UNIX? Use it in the office, for data sampling, in a school...

Just what I was afraid you were going to say. In any given system, (computer or otherwise) there is some component which limits the performance. This is lovingly called a "bottleneck". It doesn't matter how much you improve everything else, if you can't improve the bottleneck things won't run faster. In a 68000-based Unix(tm) system, the memory is the bottleneck up to about 2Mb. Above that point, the 68000 becomes the bottleneck. Putting 7Mb on a 68000- based Unix system is a waste of money.

> Picture as many RAM disks as you could ever need...

How many *is* that? 7Mb is a *lot* of RAM disks. I would suggest that 2Mb would be "as many RAM disks as you could ever need..."

> favorite game in one window and your terminal program in another.

For this you need 7Mb?????? How about maybe 1MB?

> Start with 512K, if you want more it's available.

And you can start with a VW Beetle and upgrade it to a cement mixer truck. But nobody would (I don't think anybody has). The point is that the cost of memory is so high that if you really wanted a multi-user Unix system, you'd simply buy a purpose-built system with a reasonable powerful CPU, and probably an MMU and an FPU, instead of trying to turn a home game-playing computer into a poor imitation.

Doug Pardee -- Terak Corp. -- !{hao,ihnp4,decvax}!noao!terak!doug

Message 6 in thread

From: john riner (riner@dsd.UUCP)
Subject: Re: Commodore's Lorraine
Newsgroups: net.micro.cbm
Date: 1985-02-27

I still can't see why anyone would need 7 megs or more of RAM space. We have a Workstation with 2 Megs and it can run 16 concurrent shells (each has its own window on the screen) and you can't keep track of that many. We have a PDP 11/44 with 2 Megs of memory which serves 64 users and 900 Megs of disc drive so I can't see the need for 7 Megs in a multiuser system either.

As for RAMdisk use. This is a possibility but I would think that is a bit of overkill.

For all the talk of Commodore beating the price of Apples and IBMs, they can surely do that with an excellent competitive product which has features useful to the majority of users and include the exotic in a machine that is slightly more expensive.

John Riner UCP: !fortune!dsd!riner
AMPEX Corp.
Redwood City, CA.

Microsoft Humour

Here is some humour at the expense of Microsoft from the webpage of Adrian Barnett (URL : http://www.abarnett.demon.co.uk/msbinary.html)

Breaking News

Microsoft enforces copyright of binary numbers

In a remarkable show of business acumen, Bill Gates yesterday stated that Microsoft would be enforcing it's copyright protection of the binary number system (base 2, as opposed to decimal base 10). Henceforth, Microsoft will be issuing writs against all software and hardware vendors than employ the binary digits 0 and 1.

A spokesperson for a leading computer manufacturer has commented "While we have been expecting this move for some time, it still comes as a bit of a shock. As you may know, all computer hardware and software relies absolutely on binary digits. Today's computers only understand zeroes and ones, and to change this at such a late stage will be most inconvenient.". Current computers can only recognise 0 and 1, and all software is, at the base level, a string of binary numbers.

Larger firms such as IBM, Amdahl and Sun have been experimenting with analog or decimal computers for some years, in anticipation of Microsoft's move, but progress is slow. "It simply is not possible to convert all non-Microsoft software from binary code. We are all going down the toilet." said Ed McCracken of Silicon Graphics.

Microsoft have stated that they are prepared to license out the use of 0 and 1 to any interested parties, but mention that they "do not think it is that big a problem".

Products that rely on binary numbers currently include disk drives, all software, all source code, all memory chips, all CPUs, tape drives, printers, scanners, CDROMS, sound cards and graphics cards. All software, including games, text, data, audio, video and graphics files will have to be converted or deleted. It is also expected to impact companies working on the Year 2000 problem, as they will now also have to convert their Year 2000 compliant code to decimal, trinary or analog.

Many large industrial companies (e.g.. aerospace, motor manufacture etc.) have a head start, as they have not yet converted from punched card to magnetic disk, and Gates' lawsuits do not apply to paper media. Air Traffic control computers are also exempt as they were built before Microsoft discovered and patented binary numbers.

Bill Gates commented "We see this as a positive step forward for the computer industry. For too long they have relied on 0 and 1. This will encourage them to broaden their horizons and develop hardware that can handle 2, 3 and maybe even higher numbers. For the time being, Microsoft will continue to develop binary-compliant software as a service to those who cannot currently upgrade to the as-yet-nonexistent non-binary machines. We see this as a public service, and will probably cost us thousands of dollars, but we are happy to remain behind while other companies press forward into new areas of technology and possible bankruptcy."

C64/C128 HARDWARE

CMD have sold their C64/C128 hardware (SCSI hard drives. RAMLinks, SuperCPU etc.) designs, stock and customer list to Maurice Randall of Wheels and Wave fame. Maurice plans to update this equipment and to continue to make it available to C64/C128 users. Here is some recent Newsgroup information about the upgrade to the Hard Drive operating system.

From: Maurice Randall aurice@ia4u.net
Reply-To: maurice@ia4u.net
To: homestead@videocam.net.au
Subject: [Homestead] HD-DOS update
Date: Fri, 14 Dec. 2001 21:26:29 -0500

HD owners,

On Wednesday, I started up a CMD-HD for the first time with my new HD BootROM. It was a bit buggy at first, but after a day of debugging, it's now starting the drive up and getting the DOS running just fine.

For informational purposes, the CMD-HD contains a 64K computer inside the case with a 6502A processor. This computer is what makes up the SCSI controller as well as the interface to the 64/128 through the serial bus and the parallel port of the RAMLink. Just like the 64/128's have an operating system in rom, so does the CMD-HD. But what's in rom is very basic, for the most part the BootROM is used to start the machine up and access the SCSI drive mechanism which will then load in the main HD-DOS. The rom is then switched out and the DOS which is loaded into ram is then put to use. The BootROM is also used during any reconfiguration operation such as when installing a new hard drive mechanism or creating a new partition.

Today, I was able to get the new HD-DOS booted up from the hard disk as well. Being new, it's naturally got a few problems that I need to work out. But over the next few days, those problems will get corrected and then I can continue working on the new features. A good share of the print spooler code is already implemented. This will allow the CMD-HD to act as an intelligent printer interface. It will trap any data being sent to device 4 and will store the data in a print buffer partition. While data is being received from the computer, it will begin to spool it out through the auxiliary port to the real printer or printer interface. Since it can receive print data quickly, and buffer it on the hard drive, you will be able to return to working on the 64/128 sooner,

especially with those large print jobs. At the same time as the HD is sending print data out the auxiliary port, you will still be able to access the HD to load and save data normally. So, you won't be slowed down with disk access either.

The new BootROM is built just like a JiffyDOS chip that goes inside a 1541. It's a dual rom system with a switch that can mount on the back of the HD. With the switch in one position, you'll have the new BootROM in use, but if you flip the switch the other way and press the reset button, it will switch to the original V2.80 BootROM which was the latest one that CMD produced. The older BootROM will boot up the older V1.92 HD-DOS while the newer BootROM will boot up the newer HD-DOS. This will prevent any incompatibility problems that might arise with a rare utility or two. Although it's very likely you'll never need to switch to the older BootROM.

Once the BootROM module code is finalized and the print spooler is finished, I'll begin shipping the new HD-DOS package to everyone who has ordered it thus far. And at that time, all new CMD-HD's will ship with the new BootROM module installed and both HD-DOS's installed in the system partition. Of course, I'll continue working on the HD-DOS and will send out updates as they become available. The main HD-DOS can be upgraded easily since that part is all done through software. The BootROM isn't as easy to upgrade, so I plan to make sure that part is completely ready before shipping. As far as upgrading the software portion of HD-DOS, that's only about a 3 minute job to run the installer software, press the reset button and you're done.

In addition to the current programs on the HD Utilities disk, I plan to introduce some similar utilities that will run from within the GEOS and Wheels environment. Later on, similar software will be made available for the FD and RAMLink as well.

All CMD-HD's shipped since August 2001 will receive this HD-DOS package upgrade for free. If you change your address, be sure to inform me. For all units shipped prior to August 2001, the HD-DOS upgrade will be available for $40 plus shipping.

-Maurice

*** Maurice Randall - Click Here Software Co.*
*** High-Performance software for your Commodore*
*** email: maurice@ia4u.net, support@cmdrkey.com*
*** web: www.ia4u.net/~maurice*

Commodore Spring Expo - Louisville KY. Clockwise from upper left, **Greg Nacu** explains the wonders of the JOS operating system, **Jim Butterfield** in natty attire, **Joe Palumbo** wheeling and dealing and lastly, our own president, **Tom Luff** demonstrates his favourite utility - Fun Graphics Machine.

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