



# AMIGA NEWS

July 1993

## And Now, the End Is Near

*and so I face the final curtain...*

**By Steve Jess**

Relax. I'm not talking about Commodore this time. I'm talking about *me*, as your Amiga section editor. This will be my final issue. Next month, Rob McConeghy will take over, at least for a little while (we know how that goes, don't we? Enjoy your year as editor, Rob!)

### ***DISK OF THE MONTH*** ***JUNE 1993***

**Genealogy** -- Nicely done genealogy program, includes IFF viewing feature.

**HomeInventory** -- Database for a simple listing of your household contents.

**BackGammon** -- Basic backgammon game.

**PhoneList** -- Phonebook program, pop-up feature.

**SMaus** -- Sun-Mouse window-activation utility with numerous options.

**Planetarium** -- Shows relative orbital positions of all planets. Shareware version only covers 1990-1995, registered version goes 1000 AD to 2000 AD.

**NABShow** -- Commentary on video show.

**RTG** -- Explanation of retargetable graphics, future Amiga feature.

*(see page 6 for the May disk listings.)*

It's been about a year and a half since I volunteered for this post, taking over for Leila Joiner. It's been a pretty amazing year and a half, too. First the Amiga 600 appeared in Europe, then in the fall the Amiga 4000 bowed, along with AGA graphics. Next the 1200 looked as if it was going to set the Amiga world on fire. Commodore introduced a 386SX Bridgeboard, new monitors, etc. NewTek's Video Toaster went from relative obscurity to practically being a household name. The Babylon 5 TV series, using special effects generated by the Toaster's Lightwave program, is going into production after the pilot episode was a hit last January (I wasn't impressed with it, but what do I know?) Now the Toaster 4000 has been introduced, with even better effects, and Commodore will promote it alongside NewTek.

Alas, Commodore. If anything has driven Amiga fans to drink, it's been Commodore. In 18 months, it's gone from relative financial health to near bankruptcy. Losing \$177 million in the third quarter forced it to lay off most of its Research and Development staff, although work continues on new chips, new operating systems, etc. The company has until the end of this month to find new financing. The next hurdle will be surviving the Christmas season, and that'll mean selling a lot of 1200s in Europe, where the recession is still going strong, and clone computers are getting cheaper every day.

A Commodore shareholders' movement is starting (see page 2), with the intent of forcing out Irving Gould and Mehdi Ali, the executives who are most often labeled as The Bad Guys. Such movements usually don't succeed, but at least they give shareholders a feeling of *doing something* instead of just sitting and watching a company go under.

## The Commodore Shareholder Movement

### INTRODUCTION

The users of Commodore computers should be happy to learn that the Commodore shareholders are finally taking action to solve the company's chronic problems which have led to its current grim financial situation. Faced with the daunting barriers of Bahamian law and an uncooperative Board, this movement which grew out of the concern of shareholders, developers and dealers, is actively enlisting the aid of the Amiga-user-base to support the effort.

### THE MOVEMENT

The Commodore Board of Directors was warned at the 1991 shareholder meeting, "If things don't improve, Commodore will go out of business." It's a year-and-a-half later and Commodore's value has plummeted, largely due to lack of leadership and poor management. In response a movement has been organized to replace the Board of Directors.

### THE PROBLEM

Commodore had the potential to become a 10 billion dollar-a-year company back in 1985. Instead, they went dormant with only sporadic attempts to generate sales. Now, Commodore is on the brink of ruin and a community of people including shareholders, businesses and customers have a stake in Commodore's survival. Irving Gould, the Chairman of the Board and C.E.O. of Commodore International Limited is the greatest barrier to Commodore's survival. Gould has eroded the loyalty of their only reliable revenue source (the customer base), driven Commodore into debt, and brought the company to the edge of collapse (1993 3rd quarter disclosure).

Meanwhile, Gould has compensated himself with annual salaries of over 1.7 million dollars, plus stock options and bonuses (1992 Proxy Statement 3). Shareholders who have already lost a great deal of money stand to lose everything. Commodore is also the sole source of Amiga computers, a proprietary product in which many people have invested. These customers will be abandoned and possibly forced to buy products less suited to their needs. A top-caliber engineering team will be broken up, many small symbiotic companies will lose their market, and potentially successful products will never be developed.

### THE SOLUTION

The change of top-level management is believed to be Commodore's only chance for survival. This can be accomplished through the election of new Directors. The upcoming 1993 shareholder meeting presents the chance to break Gould's stranglehold on the company and to replace him with dynamic

leadership. A movement to nominate and elect new directors is being organized.

Both Irving Gould and Al Haig are up for reelection to the Board of Directors. All shareholders should vote for the alternative candidates who will become known in the following months. Talks are being made with some very exciting possible candidates. With Gould gone, Commodore can start on its path to recovery, being led by capable new Directors. Without Gould, the remaining Directors will likely step down.

### BUYING STOCK AND VOTING

If the shareholder movement is successful, then Commodore stock may have been a smart investment. Many companies have come back from the brink. The purchase of stock will allow you to cast a proxy vote in the upcoming election, or attend the shareholder meeting (at your own expense). In order to buy stock, contact a discount stockbroker. There will be a transaction fee which shouldn't be over \$50. Order as many shares as you want. To expedite the proxy voting process, ask for the stock certificate to be sent to you. Get your friends to buy stock. Ask for it for your birthday. The process is easy and any amount helps. Just remember the risk if the effort fails. You'll at least have the satisfaction of being involved. Watch for the candidates and vote!

### SPREADING THE WORD

If you buy or own any Commodore stock, contact us with your address. Send a letter or e-mail (MarcR@cup.portal.com). Let everyone who might care know what's going on. Bring it up at the users' group meetings and write articles for the newsletters. Re-post this announcement. Talk about it on the electronic bulletin boards. Call talk radio stations.

### BEHIND THE MOVEMENT

You might remember the recount of events of the 1991 shareholder meeting where shareholders warned and pleaded with Commodore to improve and market their computers. This is the same meeting where Irving Gould ordered the physical removal of a shareholder who attempted to make a motion that the meeting be adjourned and reconvened in the United States where shareholders could really attend. The current movement has grown from that Philadelphia group, and now includes Commodore shareholders, developers, dealers, and users from across the country. All you have to do is buy or own stock and contact us with your address to become a part of the movement. Please write to us at:

Commodore Shareholder Movement P.O. Box 8296  
Philadelphia, PA 19101

# 1200 Accelerator Shoot-Out

(Condensed from Amiga Report on-line magazine.)

## Microbotics 1230XA

By Tom Mulcahy

The 2nd true accelerator for the A1200 is upon us. The default configuration of an '030/50 MHz makes it the fastest accelerator currently available for the A1200. Other versions include 33 and 40 MHz chips. All CPUs are socketed for upgradability. There is also an FPU socket for a 68881/68882 floating point unit which can be clocked independently of the CPU. If the board is turned over one will find one socket capable of supporting up to a 128 MB SIMM giving it the largest RAM capacity of any FPU/RAM board or accelerator. Next to the SIMM socket is a battery for the on board clock.

The board does not autoconfig. Two programs, SetXA and AddMem, allow the board to be configured. SetXA allows you to set the amount of RAM installed, speed of CPU and FPU and type of CPU (EC030 or 030). AddMem should be placed in the WBstartup drawer. Upon booting the board will be configured.

How fast is this board? Using Sysinfo v3.14 though, I obtained the following:

Machine	CPU	SPEED	1x faster
A600	68000	7mhz	12.66
B2000	68000	7mhz	10.63
A1200	EC020	14mhz	5.83
A3000	68030	25mhz	1.60
A4000	68040	25mhz	.40

The board has a couple areas that could have been improved upon. One more SIMM slot would have been nice. Although the one socket can already accept up to a 128 MB SIMM this can make the SIMM purchase decision tricky. Do you spend a bundle all at once and get a 16 MB or even a 32 MB SIMM? Or do you settle for 4 MB or 8 MB the first time out? The GVP 1230 Turbo has 2 SIMM sockets and so does the DKB RAM/FPU board.

The board also doesn't have a jumper to disable it. This would have helped somewhat with compatibility. I've run into a couple even newer games that won't run with the 1230XA, such as Pinball Fantasie.

What I won't complain about is the performance of the board. It is fast, no doubt, and provides a massive increase of CPU and floating point performance over a stock A1200. Along with

## CSA 12-Gauge

By A. Sahibzada

I received the CSA 1250 (Twelve Gauge) SCSI/Accelerator/Ram unit yesterday. Here is my initial impression of it:

When I opened the box, I found the following : A board with all the necessary electronics, a 25-pin SCSI plug (looks just like a parallel port plug) with an attached cable, four sheets of photocopied docs, a disk and a brochure.

The documentation is adequate, with all relevant information, though one extremely important fact is missing : There is no mention of how to connect the board end of the SCSI cable to the board. There is also no ReadMe file on the disk though it has a number of utility programs. The 25-pin plug needs to be screwed into the empty socket on the back of the 1200. There is already a hole in the casing of the computer for the holding screw.

The board itself is not difficult to install, and only takes a few seconds to push into place. On one side is the CPU and FPU, etc. and on the other side is a connector for a SIMM module. I have at the moment installed a 4 Mb SIMM in this socket, though you can upgrade to 32 Mb.

System performance has improved remarkably. My computer is really flying now!

There is a program on the disk called T3 that copies ROM to RAM. This increases performance even more, but at the expense of the loss of some Ram.

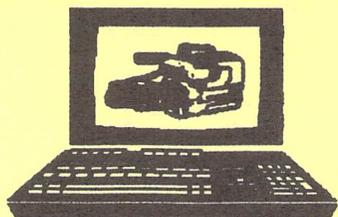
AIBB however reports that the MMU is disabled. No mention in the docs on how to enable it. Any ideas?

My overall impression of the board : Very, very good, but could do with much better documentation.

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the battery backed clock and large RAM capacity the board presents a good value. With upcoming accelerators from CSA and ICD, Microbotics will face much stiffer competition.

Microbotics, Inc. 1251 American Parkway  
Richardson, Texas 75081 (214)437-5330  
Central Time Zone, 9:00 am to 5:00 pm



## COMPUTER Y's

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## VIDEO TOASTER 4000

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*Amiga 2000 Owners:*

*Power up to the Amiga 4000*

*Amiga 4000 / 68030 / 120 MB HD - \$1599*

*Amiga 4000 / 68040 / 120 MB HD - \$2349*

*(Offer ends August 31)*

**The End is Near** - from page 1

There are other developments that are more cheerful. I'm especially interested in the new Retina video board. This is a European product being imported to the U.S. by a company called MacroVision. For \$500-600, the Retina provides the kind of big-screen, workstation-style graphics for the Amiga that used to require a \$1,000-2,000 board. Apparently the Retina uses less-expensive graphics chips being made for PC clone VGA cards. Macrovision is now reported to be claiming that the Retina even emulates AGA graphics, so Amiga 2000 and 3000 owners can use programs written for the 4000 and 1200. (This hasn't been confirmed, though.)

I was about to include a review of the Retina published as part of the *Amiga Report* on-line magazine, but it's about 8 pages long and the author, a German fellow, forbids any editing without his permission. In short: he's thrilled at being able to run a 1280 x 1024 workbench screen on a 17-inch monitor.

Also heartening is the explosion in the number of Accelerators and other add-ons for the Amiga 1200. I've gleaned reviews of two accelerators from *Amiga Report*. They're on page 3.

Speaking of page 3, has anybody noticed that the last two issues have had pages 3 and 4 out of order? Some gremlin apparently got things backwards, and page 3 ended up facing page 5. Oh, well. Just for future reference, the pages go in the following order: 1, then 2, THEN 3, followed by 4,5, and 6. You folks who assemble the newsletter might want to write the previous sentence on the palm of your left hand for reference.

Unfortunately, I'll miss this month's meeting, so there won't be an official "passing of the torch" ceremony with Rob and me. That's okay. I always cry at these things, anyway.

Thanks for your support while I've been editor. It's been a ball.



## What's That Noise?

*For as long as Amigas have existed, their disk drives have clicked when empty. Recently, during a discussion on the GEnie network, one of the creators of the Amiga, Andy Finkel, explained the history behind the Amiga's unique -- some say annoying -- noise.*

When the A1000 came out, we wanted to be able to automatically detect disk insertion. So Neil Katin came up with the bright idea which solves the usual problem of disk detection by stepping the drive head, which resets the disk inserted latch. This, allows us to automatically detect the insertion of a disk, or the removal of a disk, because the latch is reset.

He decided to make it step from track 0 to track 1 and back. This produced a clicking noise. OK, that was 1.0. For 1.2, we discovered that we could reset the latch by stepping from track 0 to track -1. Because all drives have a 'track limit' sensor, no actual head movement would occur. Thus, no click. Sounds good, right? Well, unfortunately, it seems the drive mechanism vendors noticed that the track limit sensor was unused on the Amiga. So, they removed it. You'll find that many 3rd party external drives (and some A1010s) don't have this sensor. You know what happens when you seek from track 0 to track -1 on a drive without the limit sensor? Right. The drive head bangs against the stop, which not only is louder than the original click, but is actually damaging the alignment of the drive itself.

And that's the story. If your drive clicks louder when you use a 'NoClick' program, stop using it. You are hurting your drive. (By the way, the early A1000 driver had the track limit sensor. Those were premium drives, in fact. Possibly your A1000 had its drive replaced at some later time).

(And the drives don't click if you have a disk in the drive, whether or not you run a NoClick program)

*And, as Paul Harvey would say, now you know the...rest...of...the...story!*

## EA Announces Deluxe Music

SAN MATEO, CA -- Electronic Arts announced the upcoming release of Deluxe Music, the much anticipated update to the best seller Deluxe Music Construction Set. With Deluxe Music, professional and novice musicians can create, publish and perform great music without a concerted effort.

Deluxe Music now offers many new dictation features including multiple document support, hide and reveal project options for the easy management of open projects, macro support to automate repetitive tasks, and full ARexx support.

Deluxe Music also provides new playback options such as a stand-alone Player module and the ability to attach any instrument sample or MIDI Channel to an instrument name. With over 20 instruments included with multiple play

styles (like staccato or legato) for each instrument, dynamic range from ppp to fff, play back speed from 10 to 300 beats per minute and full four-voice sound, the Deluxe Music composer has a wide range of options to choose from. Deluxe Music also has full publishing capabilities and now supports 48 staves.

Deluxe Music's full range of easy-to-use dictation, ovation and pagination features make it accessible to novice musicians and yet powerful enough for the most experienced musician.

Electronic Arts is offering a \$50 (including shipping and handling) upgrade to DeluxeMusic Construction Set owners. Details for ordering the Deluxe Music upgrade can be obtained by calling Electronic Arts at (800) 245-4525 Monday through Friday 8 a.m. - 5 p.m. Pacific Time.

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## Pssst! Want a Hot Tip?

While standard ASCII text is equally readable on all brands of personal computers, not all aspects of text files are standard, in particular those things that go bump at the end of each line. If you have ever downloaded a file ends up looking like it's double spaced, or one in which the lines print on top of each other when displayed on the screen, you're familiar with one of the most common problems involved with sharing files between different brands of computers.

Experienced telecommunicators are usually made aware somehow that this is controlled by End of Line (EOL) character(s) used in the file itself. There are many utility programs that will add and/or delete Carriage Returns and/or Line Feeds (LF) in text files successfully, but that feature often comes built-into word processing and text editing programs.

AmigaDOS Release 2.04 owners who try to utilize that feature in software that stripped or added CRs or LFs fine when used with V1.3, are often in for a frustrating experience. They did it before, usually by entering Control-J or Control-M within the program's search and replace capability. But suddenly, the program they KNOW did it before refuses to accept the press of a Control key, making it impossible to adjust EOL character or do other operations that require a Control key entry.

The solution is simple. Enter AmigaDOS 2's Preferences settings, and find the IControl section. There, turn OFF (or de-select) the Text Gadget Filter option. Voila! Your software will thereafter let you

hold down the Control key (marked Ctrl on the left edge of the keyboard) in conjunction with other keys, letting you perform search and replace operations on End of Line characters.

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### ***DISK OF THE MONTH MAY 1993***

**OctaMED** -- A fully-functional music editing/composition program. Can read/write in native format or in MEDor ST-MOD formats. Not a crippled demo, but you can purchase a later, upgraded version. I've included one complex song (Lights) and one extremely simple one (Twinkle) for you to experiment with.

**EdPlayer2.1** -- Latest version of this MOD/MED player. Looks like a CD player control panel. New feature is a keyboard display to let you see the notes being played. Two songs included.

## FROM BILL KOCZON

I'm trying to decide just what to purchase to "Speed-up" my Commodore C-64. My current equipment consists of the C-64 with Micropal CPS-10 power supply, 1541 Drive, Sears SR-2000 Printer, SMC (green) Monitor, and the QBB-64K battery backed RAM Expansion Unit (REU). There are so many different opinions mentioned in B-BUG, it is difficult to decide.

I'm a complete novice at this computer biz., and my feeble mind becomes overloaded very easily when all meaningless "new" words are used in place of normal words that are actually more technically descriptive and more easily understood. Major William J. Koczon W2HWQ

Thank you for the letter. I would hope to have plenty of plain and simple articles, sans tech-talk; unfortunately they are not easily come by. People tend to not remember their pre-learning puzzlements. Newcomers tend to be shy about writing. If you are, as you say, "a novice", perhaps you will write about some subject you think pertinent. Don't worry about technical correctness, that can be fixed. And, we still print personal sketches—when we get them.

Speeding up the 8-bit Commodore seems to be of interest to many of our members, as it well should be. As you note, there are many options, more combinations, multiplied by different needs and personal opinion. I will give you a simple answer, but it will necessarily be my simple answer; so I think we should sort out the options first.

### C=64/128 HACK THE 90S

By Ted Seitz

The plan is this: First, we will consider whether it is worth putting money into an "old" '64 or '128. Second, we will look at some of the available accessories, what they are and what they can do for you. Third, we will consider what we can get, where, and for how much. Fourth, finally the "simple" answer. In order to cover this much bread, I will have to spread the jam kinda thin. Only what I consider the best of what is currently available will be included with brief comments. There will be more to be said and other opinions, and we will look forward to publishing them. Any additions, corrections, articles or comment will be appreciated.

## Worth While?

It is widely held that 64s are 10-year-old obsolete machines. They have seen their day and only "die hards" cling to them. It is one of those many things that everybody knows, which is not true, which is stupid, which is ludicrous if briefly examined.

When the first little 64s hatched out of their boxes, what could they do? Precious damn little is what they could do... until you learned to talk to them in the BASIC language. Then they mostly did parlor tricks, simple demonstrations and little adapted PET programs. Word processing? Maybe somebody's typewriter emulator, but you didn't think of using a non-Commodore printer unless you loved pain and misery. Load or save program or file? Grab an audio cassette; 4040 dual drives cost \$1200.00 and Commodore's antimarketing executives saw to it that 1541 drives were as scarce as 1750 REUs have been more recently.

Even if you only have a bare naked C64 computer and 1541 drive with The Write Stuff, you're worlds ahead of any 64, or any PC, you might've had 10 years ago. The only BASIC programming you have to do is LOAD and RUN. Once Write Stuff is up & running it takes care of LOADs and SAVEs and the built-in DOS shell takes care of any other communications with the drive. (128 p17/64 p18) The 1541 drive may plead for up-speeding, but it's a bullet next to the 10 year ago cassette drive.

Now, take your newer, better 64 and add more smarts or even a whole new operating system from software or ROM chips, add great giga-gobs of memory from RAM expanders, RAM drives (I have 5 megabytes more memory), hard drives, or even add computers to your computer. Can you rightly say that you have a 10 year old computer? I don't think so. When there is new and fresh hardware and software on the market can you say that the machine is obsolete? I don't think so.

The people I know who think these machines are obsolete, whether they be dumping or dieharding, are people who haven't added anything new or done anything new with their machines for years. Obsolete? Sure! Maybe more the man than the machine.

### For Quicker, Easier Control of Your Computer—The DOS Wedge or Shell

These programs come with drives and computers and are widely available as freeware or shareware programs. The original TSRs; they are LOAded first and from

their hidey hole in memory they handle the programming required to converse with your disk drive. To VALIDATE a disk you need only type @ or > followed by v RETURN. To find out what VALIDATE means, you still need to look in your drive manual. Sorry 'bout that. A shell program is invaluable if you have nothing better, but better it is to have it built into a program like The Write Stuff, or a cartridge or a chip. Commands are standardized to a point, following Commodore DOS 5.1 Wedge command set, but some wedges are broader and easier to use, covering such things as full use of a 1571 drive from a C64.

### For Faster Operation of Your Disk Drive —Upgraded Disk Operating System (DOS)

The main speed bottleneck on these systems is drive access; LOADING from and SAVEing to the disk drive. There are programs like "fast ba" and "fast bb" that come with The Write Stuff, '64 V2. These may be expected to do a fine fast job of LOADING your program, but then they just wonder off, and don't help a bit in LOADING and SAVEing from within the program. The newer cartridges and chips use an upgraded DOS which will fast-load a program, as well as fast-loading and saving files from within the program, automatic.

### Cartridges

Several makes of utility cartridges are still being produced; all work in '64 mode only. Super Snapshot V5 from Canada: Windowed menu interface, BASIC 2 extension, best freeze utilities. Final Cartridge III from Germany: Graphic User Interface (GUI), large extension for BASIC 2, word processor. Action Replay V5: Will compact programs. Super Explode V: Mostly graphics. 1541 Flash and Fast Load are still available from some dealers. According to reviews and the SSV5 I have, Super Snapshot V5 seems to be the survivor of the cartridge wars. It and the first two listed have an excellent assortment of utilities; too many to detail here. SSV5 & FC3 have 64K ROM & 8K RAM. SSV5 has optional 32K RAM & the ability to access a packed REU & a 128's 64K video RAM. All these cartridges have extended DOS shells, disk speed-up routines and work only in 64 mode.

### PORT EXPANDERS

To have more than one cartridge plugged in at a time requires a cartridge port expander. The 2+1 & 3+1 from CMD are said to be most compatible with REUs. The Aprospand is fused and has a switch for each slot. REUs should occupy the first slot. The 3 slot expander sold by Tenex is not recommended for REUs and has a single 3-way switch, so two cartridges cannot be on at the same time.

### CHIP SETS

A few years ago it was really difficult to sort out the claims of the various upgrade chip manufacturers. The survivor of the fray is JiffyDOS, which is now upgraded to V6. The JiffyDOS kernal provides a whole new operating system for your computer. Compatibility is unchallenged. The DOS Wedge covers the C= 5.1 set completely and runs on into a 17 command extension of such handy-dandy as: LISTing a BASIC program from disk, LISTing an ASCII file from disk, copying files (with 2 drives), and screen dump (text screen), to such esoteric goodies as setting interleave gap size, command chaining, string variables, and default device override. Fast LOAD and SAVE routines work on all C= file types, from BASIC and within programs, except that some programs, such as Maverick and GEOS, disable JiffyDOS to use their own fast drive routines. Works fine with Write Stuff.

Some side benefits are: Commodore ROM bugs are fixed and on a 128 JD also works in 64 mode. I bought an old 1571 drive at a swap meet and the darn thing spent more time talking to itself than it did accessing files. Since I plugged in the JD ROM chip, it hums right along.

The down side is that the chips must be installed INSIDE THE BOX. This is usually just a matter of opening the case, plugging chip in socket, and punching hole in case for switch. BUT, in some old C64s and some new 64Cs there is no socket and the old chip must be desoldered and a socket soldered in. If you have, or will have, RAMLink or RAMDrive, NO chip is needed in the computer; the plug-in cartridge runs the whole show. For the drive access speedup to work each drive still needs a chip, but I believe they are all socketed.

Nowadays, JiffyDOS is considered minimum equipment for C= 64/128s.

### CPU SPEEDUPS

The drummer that the '64 marches to beats out 1 MHz. That means it pops along at 1 million steps a second. Fast, huh? Well it used to be. The 128 can double-time at 2 MHz. The upper limit on microcomputers is 66 MHz right now. Is all that speed necessary? Well, for heavy number crunching on inefficient systems, yes. Things like large spreadsheets, graphics, MS-DOS, and Windows graphic interface. For T.W. Stuff no. Not yet. Well maybe. How's that for covering all bases? Well maybe — I wouldn't mind a little more speed previewing a large file

in columns, and them that can't get along without insert mode could use a little more speed. Not yet — but what about when we fire up The Write Stuff Publisher? What about when we run the massive manipulations massaging mega-mountains of mutinous pixels into pictures and fonts? Then either more speed or more patience will be a requirement.

Hardware and vaporware to the rescue. Plug in Schnedler Systems' Turbo Master CPU and your '64 starts spinning at 4.09 MHz; 4 times the speed, really important for a GUI like GEOS. This cartridge was like a computer you plug into your computer and it was available with JiffyDOS installed. Unfortunately, Turbo Master has been discontinued.

There has been a lot of foot dragging on a speedup for the '128, but now John Brown, CEO of Parsec, Inc., Editor of Twin-Cities 128/64, and SysOp of The Commodore Flagship on GENie has taken it upon himself to produce a speedup cartridge for the 128 and 64. He has my \$50 deposit but is not taking any more till a prototype is produced. The unit is to sell for less than \$200 and is to include a 6502 compatible central processing unit running at \*\* 12 \*\* MHz in 128 and in 64 mode and downshifting to 1 or 2 MHz to communicate with slower chips. The last specs I saw called for 128 or 256K RAM on board with a max of 1 meg. There is to be full compatibility with RAMLink, JiffyDOS and all CMD products.

## MEMORY

Extra memory can be accessed by some programs and is also used to create virtual drives (RAM drives). These are chunks of memory configured so that they look like disk drives to computer and program, but work with electronic speed rather than mechanical speed. They allow you to have a lot of files at your fingertips. They allow you to save often, without being interrupted for more than a second or two by a blank screen. Plenty much handy now; dam site handier with TWSP; invaluable with GEOS.

Commodore REUs (RAM expansion units) are: the 1700 with 128K of memory, the 1764 with 256K, and the 1750 with 512K. They can be stuffed with up to total 2 MB (megabyte, million bytes) of memory. The '128 has enough power to operate them, but the '64 needs a larger power supply, or CMD's RAMLink, or PPI's BBU (Battery BackUp) or RAMDrive with a port expander. They also need programming to operate: that is, you must LOAD RAMDOS from disk every time you fire up unless you use RAMDrive with a port expander, or RAMLink, which carry the most advanced operating system, RLDOS, in ROM.

The Super 1750 Clone by Chip Level Designs is just what the name implies. It works like the C- 1750 but is packed into a small game cartridge. It would seem to have no room for expansion and is said to require no heavy duty power supply.

GEORAM by GeoWorks comes with 512K and can be packed up to 2 meg. The '64 is supposed to have enough power to operate this one but not very likely up to 2 meg. For an operating system, this one requires GEOS, or RAMDrive with a port expander, or RAMLink. It is held to be slower than the C- REU and, while still available from the factory, GeoWorks is not advertising or upgrading any of its 64/128 products.

PPI's BBGRam is a very reasonably priced GEORAM clone that comes with a small power supply and dry cell battery holder for backup. Like GEORAM, it only works with GEOS.

The Quick Brown Box is a battery backed RAM expander which comes with its own memory management software; a loader to load programs into the Box, a '64 and a '128 memory manager program to reside in the Box.

QBB comes in 64K A & B, 128K, and 256K sizes. The 64K "B" Box is to be used with the "A" Box in a port expander. A nice thing about QBB is that the static RAM (SRAM) it contains requires very little juice to stay alive. The small internal lithium battery should be good for 10 years of continuous use. The small motor-cycle size gel-cell battery optional with RAMLink only lasts a day on a charge with 1 MB of memory to keep up. (It trickle charges when the RAMLink power supply is plugged in.)

C- REUs and JiffyDOS are compatible with the Box, however there are a lot of ifs & buts regarding compatibility with other cartridges. You can't very well leave it switched off in a port expander because there is a heavy drain on the Box's battery when the computer is on with the Box switched off.

A school with limited resources, i.e., a private school, could set up very low-buck word processors, at once simple, quick, and powerful, with the Quick Brown Box, used '64 & mono monitor, old C- printer and TWS, Brown Box version. I used to do my writing at one location on an old '64 with no drive, only QBB, TWS and TV. Then I put the Box in my pocket (good idea to use the static resistant bag it comes in) and at another location, plug it into another computer and download to disk and printer.

RAMDrive and RAMLink by CMD combine all of the above. They provide an interface between the computer and memory: C= REU or clone, GEORAM, 1 and 4 MB SIMM chips. (Single Inline Memory Module, the least expensive alternative.) They provide all the utility goodies to manage large chunks of memory: up to 16 megabytes of RAM and 4 gigabytes of hard drive. They provide a separate power supply with battery backup for the memory. When you turn your 8 bit chugger off, or the electric utility turns it off, you don't lose your (added) memory. They provide the JiffyDOS operating system with an excellent expanded wedge and fast drive access routines. Some quite advanced copy and memory management utilities are included on disk and, of course, can be kept in the Link for immediate access. RAMLink provides a slot for an REU and a slot for a cartridge. "Real" disc drives will work normally with this setup or fast with a JD chip installed.

Hard drives are available. CMD sells 40, 85, 100 & 200 MB SCSI (Small Computer Standard Interface) drives which can also be used with less popular computers such as Amiga, IBM, and Macintosh. They work very fast with RAMLink,  $\frac{1}{2}$ fast without it. Once you have one CMD HD (smart hard drive) hooked up, you can daisy chain up to five more off-the-shelf SCSI devices.

A hard drive is really needed on the "in" computers because they have to handle MUCH more coding than a 64/128 to do the same thing. That, and graphic interfaces, is why they need all that speed and space. That's why 100 MB hard drives are being touted as "entry level" in the MeSsy DOS world. Remember, all that filled space has to be backed up to floppies or tape unless you love to live dangerously. Floppies and tape are for permanent storage. RAM drives and hard drives permit quick and easy access to programs and files in regular use. RAM drives are the quickest and at this time, the cheapest up to around 8 MB. Hard drives are less expensive memory beyond that point. Hard drives have moving parts and run all the time your computer is on and take a while to spin up to speed. RAM drives have no moving parts, so are faster and quiet and don't wear out. If they are not to lose their memory, they draw a small amount of current all the time and emit radio waves all the time as all other computer equipment does when it's on.

A second disk drive is a very useful addition. The 1571 is (was) a very talented drive. Operates in 1541 (single-sided) or 1571 (fast double-sided) mode.

With suitable software it will read and write CPM and MS-DOS disks. The 1581 is faster, will put .8 of a megabyte on a  $3\frac{1}{2}$ " disk, and will read & write MS-DOS disks. The C= 1581  $3\frac{1}{2}$ " .8 MB floppy disk drive is again available, from Software Hut. CMD is marketing the FD series of  $3\frac{1}{2}$ " floppy drives which can put .8 or 1.6 or 3.2 MG on a disk and time stamp the files. A fast 3.2 MB floppy on a C= 64/128 is equivalent to a removable media hard drive on a clone at 10 or 15% of the price.

The 80 column RGBI screen is something I would not like to be without. The 64 version of The Write Stuff has an 80 column preview screen that is good for formatting but hard to read. To get a "real" 80 column screen you need to upgrade to a 128 CPU. The '128 is considered the most advanced 8 bit computer ever developed and has a lot of advantages over the '64. Two are really important to me: The 80 column screen and the 80 column 128 version of The Write Stuff. Program versions for the 128 are usually more sophisticated because there is more room for programming.

You can get an 80 column screen on a mono monitor, in mono-color on a 40 column color monitor, or in color on an RGBI (Red Green Blue Intensity) color monitor. Some near-sighted friends of mine prefer the 40 to the 80 column screen on a mono monitor. I like the 80 but we agree that it looks better on the color monitor. They think it might be enough better. Doesn't really make much difference for writing, but for heavy duty formatting, such as a newsletter or laying out a form, 80 is a lot easier. 80 column also puts twice as much data on a screen. It is not widely known, but the '128/RGBI can produce the same quality interlaced screen as the Amiga with more colors. Several programs now make use of this screen to paint or view graphics or to get 50 rows of text on screen rather than 25.

Printers are another important step in the upgrade path. We won't get into printers beyond making a few observations: 1) Because of The Write Stuff's unequalled macro capability, it can drive any standard printer. 2) The newer printers keep getting more fonts and features and easier to use. 3) I think that The Write Stuff Publisher will be a great printer equalizer, having unlimited fonts and good print quality on most any printer. However, the fonts built into your printer will be much faster and you will likely use them for the body of your documents. I think that TWSP will GREATLY upgrade our systems and change our system priorities. We must wait and see.

Treasure troves of Commodore equipment exist in yard sales, computer, ham, and general purpose swap meets, second-hand stores, and want ads. What I can get for how much is a factor in what I should have. Here is a list of components from common to rare with retail prices. Should be able to find them for less from above sources. C64 - \$55 Mono monitor \$60 1541 drive - \$100 64C - \$75 40 column color monitor - \$100, RGB monitor - \$125, C128 - \$125, 128D - \$320, 1581 drive - \$135, SX64 Lugable computer - price varies a lot, maybe \$250? (PET & Plus 4 computers - \$000, may be worth something in a few years, like a model T & an Edsel) A late model JiffyDOS chip might be worth \$25 in a '64, \$35 in a C128, \$50 in a 128D, and \$20 in a drive. If you knew it was a V6 (V5 in drives) chip, it would be worth the retail price of the chip. 64K video RAM in a C128 would be worth something too, as would an upgraded chip set. Don't buy anything without documentation, unless you are very familiar with the product, or know where to get documentation.

**FINALLY!**

What should you do? Well, first of all, do you want to stick with your 64K Quick Brown Box? If you do, JiffyDOS chips might be your first concern. Next, do you have enough room in your QBB? If not, a port expander and a "B" box or REU might be a good idea. With the REU, I would think that you could get the Brown Box to automatically LOAD RAMDOS, as well as TWS, and put the dictionary into the REU when you on the computer.

You might go to the 256K QBB or RAMDrive. Beyond that, a second drive is always nice and so is a '128 or a color monitor.

Your Sears printer seems to do a very good job. My only other thought on upgrading at the moment, is that you master all the features in TWS by trying them, one at a time. They ARE worth the trouble. Learning to use them will likely do more of a speedup than any addon you buy. B-BUG will be detailing all features. And get TWSPublisher (or V3) soon as it is available. ■ ■ ■

This material has been updated from the February 1992 B-BUG, the newsletter of The Busy Bee User Group supporting The Write Stuff word processor, as well as the Commodore 64 & 128 computers it runs on. Box 3, Arivaca AZ 85601-0003. \$20 year or 12 issues. ■ ■ ■

**WHERE TO BUY IT**

**BRIWALL, PO BOX 129**  
Kutztown PA 19530 800-766-5757

Super Snapshot V5 cart.	\$ 59.00
Aprospand 4 slot cartridge expan.	\$ 27.00
Bridge 5.0	\$ 24.00
Family Tree 64/128 & LDS	\$ 45.00
S&H Software \$5 per order	—Hardware
UPS/Federal Express/Priority Mail charges	

**CMD — Creative Micro Designs, Inc.**  
PO Box 646, East Longmeadow MA 01028  
Orders 800-638-3263 FAX 413-525-0147  
Questions & Support 413-525-0023

JiffyDOS, HD Series Hard Drives, RAMDrive & RAMLink RAM Drives, FD Series Floppy Drives, SwiftLink RS-232 Communication Cartridge, SID Symphony Stereo Cartridge with Player, and GEOS Utilityies. They have bought out and are selling RUN/Techmedia's stock and are planning to produce FAX Software for the 64/128.

**Lycos, PO BOX 5088, Jersey Shore PA 17740,**  
800-233-8760

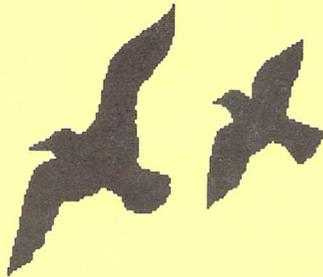
Magnavox 1CM135 RGB Analog/Digital 640x200 C=40/80col/IBM CGA Color Monitor \$229.95  
Goldstar 2105 A 12" Amber Composite Monitor 640x200 IBM/C=40/80col \$ 74.95  
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FREE S&H for CIF (Cash In Fist) continental U.S. orders over \$50; +\$3 under \$50. n.b. This means money order or long wait for check to clear. Other methods of payment accepted with substantial S&H.

**Software Hut, 2534 S Broad ST**  
Philadelphia PA 19145 800-848-0079

1581 3½" .8 Mb drive, New	\$109.95
Maverick	\$ 29.00
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**Software Support International, Suite A-10**  
2700 NE Andersen RD, Vancouver WA 98661  
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Better Working Turbo Load and Save 64 cartridge	\$ 14.97
Mach 128/64 cartridge	\$ 24.97
Warp Speed V2 128/64 cartridge	\$ 29.97
Super Snapshot V4 64 refurbs	\$ 29.95
With either switch	\$ 37.95
Super Snapshot V5 64	\$ 49.95
With OFF switch for 128	\$ 57.95
With reset switch for 64	\$ 57.95
Dialogue 128	\$ 24.97
Superbase 64 or 128V2.07	\$ 24.97
V3.01/1581 is the one for RAMLink - others may be upgradable/New issue may come out?	
Drive Alignment 1541/1571	\$ 12.97



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