The Interface

"Taking 8-Bits Into The 21st Century"

Volume 44 Number 6
September/October 2026



Shall We Play A Game?

For Halloween, how about a little "Ghosts N Goblins" for the C64?

In This Issue:

Go Go Godzilla (A look at another Bible type-in game)
TAC-2 Joystick (An official Commodore International product)
Classic QL Transcript with Dave Haynie (The latest 1987 news!)
Duo of Deals (Commodore Intl. and Amiga Corp. get together.)
Loadstar On-Line (Yes, you can download all of this classic diskzine.)
Monthly Meeting Reports (If you weren't there, we were.)

Newsletter of the Fresno Commodore User Group – Fresno, California
www.dickestel.com/fcug.htm



GO GO GODZILLA

-by Lenard R. Roach

GO TO THE TOP

I am presently covering the type-in programs that are found in the book, "Bible Basic" by Bernard K. Bangley. This time I look at the program entitled, "Jacob's Ladder."

The inspiration for "Jacob's Ladder" seemed to come from Genesis chapter 28. In this portion of scripture, Jacob traveled through the Promised Land that would be later called Israel. Nightfall approached, so Jacob stopped to set up camp and prepared to get some sleep. Jacob fell into a deep sleep and had a dream of a ladder that stretched from heaven to earth with angels climbing up and down it. At the top of the ladder, the Lord himself promised the land that Jacob was sleeping on would belong to him and to his descendants forever.

The program, "Jacob's Ladder," follows the idea given in this narrative. A "ladder" is drawn on the screen made out of multiple equal signs (=) that lead up to the top of the screen. The player is represented by an asterisk (*). A true or false statement based on Bible information is given at the bottom of the screen. If the player gives the correct answer, the asterisk takes a step up the ladder. If the player is wrong, then the asterisk takes a step down the ladder and a warning is given to "watch out." Two wrong answers and the game is over. The player must give eighteen correct answers to win the game. The questions are given in DATA statements that are placed at the end of the program. To show the coder the structure of each data statement, two sample questions along with the T or F solution are at the end of the program listing.

Taking up only three blocks on a disk, the program seems to be written for use on any subject found in the Bible, or any other subject for that matter. The DATA statements can also be changed to fit the subject at hand. Even though there are only a few lines total that make up the program, it is a very flexible piece of code. I had fun changing DATA statements to say what I wanted. I could be serious or funny or rude or nice. There was no end to the kind of information I could display from the program.

"Jacob's Ladder" could use a little TLC, though. A more skilled coder of Commodore BASIC can give the game some color and a few sounds to help it blossom into a full-blown Commodore game fit for even the serious gamer. The game is played on the left side of the screen. A simple repositioning (or adding) of some TAB statements can move the program to a more attractive and scenic location on the monitor. I personally like the

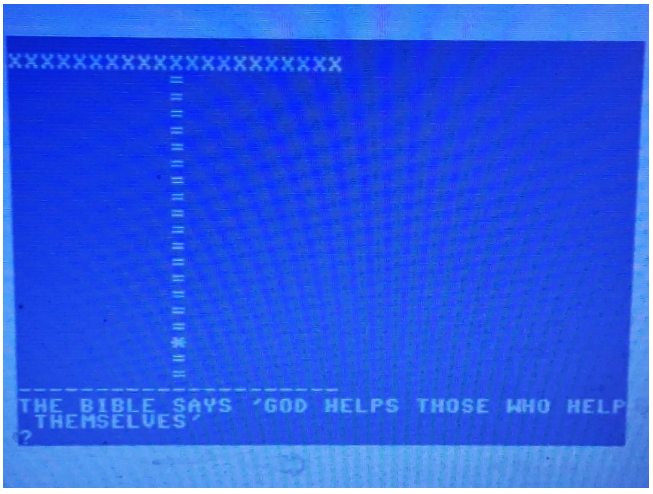
idea that the game loops back to the start so the image is not cluttered by scrolling up and showing parts of the last answer given. Thank you Commodore, for the SHIFT/CLR-HOME (reversed heart) command.

"Jacob's Ladder" is a great example of how much the Commodore can do with only a few simple lines of code placed at the right points within a program. Any person who wants to learn Commodore BASIC should study it carefully. I must admit that when I sit down to code a program on the Commodore 128 in 64 mode, I write the work in the form of subroutines, separating each subroutine by line numbers that end with either two (00) or three (000) zeros. With a REM statement, I also make note of what the subroutine is supposed to do. That makes it is easier to find the subroutine if I see the needs tweaking. When I decide that the subroutine does what I want it to do, I join the newly coded subroutine to the main body of the program with either a GOTO or GOSUB command. When the entire program, full of subroutines, GOTO's, and GOSUB's, is satisfactory, I do a final SAVE to a work disk. Before shutting off the computer, I take a fresh blank disk and save the program to the fresh disk, thus making a master copy.

However, I like uniformity in a program, i.e., a program that has gaps in the numerical sequencing of the lines drives me nuts. Here is where my Commodore 128 comes into play. Loading my finished 64 program into the 128 side of the computer, I use the RENUMBER command to reorganize the numbering into something more to my liking. If I find an inconsistency after all this is done, I go back to the work disk and make the correction. Then I repeat the process of making a master disk by either saving the program under a different name or by using the "save with replace" (@0:) command to keep only one master program on the master disk.

"Master Z," the man who taught me the basics of BASIC before he passed suddenly in 1998, always believed in making multiple copies of the same program, each copy on a different disk if I plan on working a lot with that program in the future. I have done that with the programs found in the Bible Basic book.

With all that being said, I hope that coders have a great time making up true and false questions that either teach, amuse, or confuse players in "Jacob's Ladder."

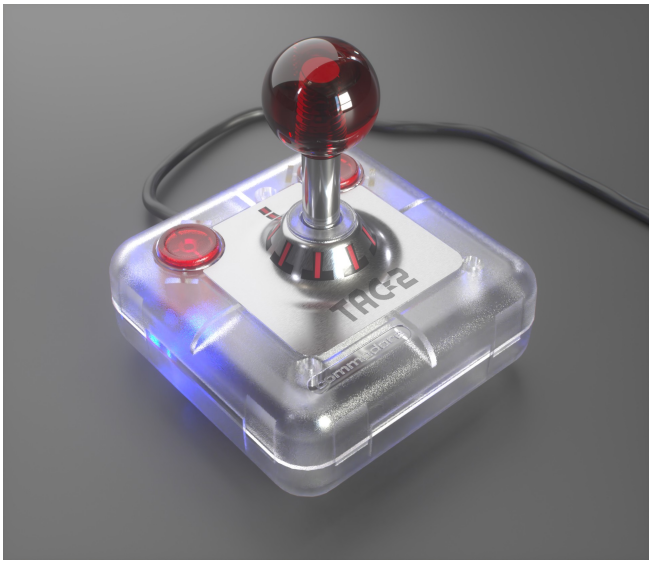


What is the correct answer?

The intruder climbed to the open, second floor window. When he poked his head through the window, the C= user clobbered him with a C64 power brick.

COMMODORE ANNOUNCES TAC-2 JOYSTICK

THE LEGENDARY JOYSTICK IS OFFICIALLY BACK.



The Starlight Edition

Iconic. Indestructible. Arcade accurate. And now a Commodore. (And officially in production!)

Yes, Commodore International Corporation is making a joystick. Yes, it's the TAC-2 so fondly remembered. (And if you don't remember, this has been a highly sought after community favorite, scarcely available, and thus in high demand).

CIC secured exclusive trademark rights, gave it the Commodore treatment, and even snuck the Chicken Lips into the logo.

The company began with the original Suncom design and updated components so it's even more indestructible. Commodore's new steel shaft is engineered to be even stronger than the original TAC-2's copper tire valve shaft – without changing the legendary feel (yes, the original used an automotive part inside the shaft).

The company is launching the joystick in 5 colors. For the purists among us, there are the original two colors, which are called C= White and Knight Black.

And in true Commodore fashion, there are the added BASIC Beige, Starlight, and Founders colors, so everyone can have a TAC-2 that perfectly matches their new Commodore 64U. Each of these three new colors introduces fixed color LEDs on those gloriously clicky buttons that light when powered up. The Founders color comes with gold PVD-coated ball and buttons. C= White, Knight Black, BASIC Beige, and Starlight are $49.99 each, and the Founders is $64.00.

Whichever edition you choose, the all-new TAC-2 still lives up to its name:

And of course, true to the mission of preservation, the all new Commodore TAC-2 is backwards compatible with original Commodores, Commodore Amigas, and Ataris and Segas. Really any system with a 9-pin port.

Built for players who demand precision and built to survive just about anything, the Commodore TAC-2 revives one of the most iconic joystick designs of the golden age of home computing, that was famously "tested to 3 million moves without failure". Its unmistakable design and legendary toughness earned it a permanent place on the desks of

Commodore and classic gaming enthusiasts. Now Commodore is officially bringing the legend back; faithful to everything that made the original unforgettable, while refining it with carefully engineered improvements worthy of its legacy.



The Commodore TAC-2 also features a longer cable (though it's not about the size) that adds freedom to play. And for the chicken-eyed among you, Commodore's Chicken Lips logo is molded right into the 9-pin plug.

FEATURES & SPECS

- Dimensions: 101mm x 101mm x 114mm
- Approximate weight: 300 grams
- Cord length: 2 meters which is 20 cm. (7.8 inches) longer than the original
- Direct metal-contact mechanism (no microswitches!) inspired by the original TAC-2 design
- 1 to 1 compatibility with the original and all devices compatible with the Atari 9-pin standard

As of October 31, according to https://slapsoft.com/c64_sales.html , 5,562 TAC-2's have been pre-sold already.

CLASSIC QL TRANSCRIPT WITH DAVE HAYNIE

Part 2

If you were a Quantum Link subscriber, you will remember the Commodore Forums. They were live, online conferences hosted by Commodore engineers and other high-profile figures, where users learned about programming secrets, hardware projects, and upcoming products. [Below is one of] the 30 original transcripts of those forum sessions, an extraordinary slice of Commodore history.

(Dave "Hazy Dave" Haynie was a Commodore and Amiga engineer, originally hired by CBM engineer Bil Herd. He worked on the Commodore 128 but was more well-known for developing various Amiga computers. He worked for Commodore Business Machines until the last day of the company's existence.

In the below transcript, Fred Bowen and Jeff Porter are mentioned, all of them being CBM engineers.)

QuantumLink Personal Computer Network
C128 Forum
March 30, 1987

Question: What's new on a 64/128 emulator for the Amiga's?

Hazy Dave: Good question! We've heard lots of rumors; supposedly two separate companies have a C64 emulator coming out Real Soon Now. Though I haven't seen any Beta test copies, which means either the companies are doing internal testing only, or the emulators aren't as far along as they'd have you believe. If they can get these things to properly emulate raster interrupt screen splits in real time, I'll be all kinds of impressed. Sounds like they plan to sell for nearly the price of a C64 anyway, though, and you'd still need a 1541 or 1571 to read the C64 disks (the Amiga could easily read 1581 format).



Dave these days

Question: When using two 1571 disk drives, is it possible to load from the second drive without using the D.O.S. shell?

Hazy Dave: I usually type DLOAD "FILE", U9.

Question: Are the old 1571's compatible w/128D?

Hazy Dave: Yes.

Question: What's happening with Amiga sales?

Hazy Dave: Good things, and the two new models shouldn't hurt anything.

Question: Is ATH a valid command for the 1670? If so, why wasn't it documented in the manual?

Hazy Dave: I'm not sure if it supports ATH. It could have been an oversight, or it may not be implemented. ATZ is there and can give much the same results. Due to a bug, the "+++" attention code also hangs up, at least in the early units (I don't know if they've revved the ROM code or not).

Question: Does the C128D have a disk heating problem, due to the limited space? I still have sad memories of 1541 overheating…

Hazy Dave: The older C128D has a fan to take care of this. The newer unit doesn't have a fan, but in fact has LOTS of open space inside, so it cools really well. 70 questions left!

Question: When will the new C-128's start coming with the 64K video ram?

Hazy Dave: I'm not sure if regular C128s will come out with 64K video RAM at all, though all C128Ds sold in the US will.

Question: I am trying to find a cartridge expander that will work with my 128 programs such as Vizastar 128. I purchased the Aprospand 64 and was disappointed to find that it would not work. Do you have any suggestions?

Hazy Dave: I don't know of any, and in general I don't like them. Most are lucky if they work with many things at all. To work with a C128 cartridge, an expander can't do anything with the XROM and GAME lines, or the C128 will think it's a C64 cartridge of some sort (Don't mix C128 and C64 cartridges in one of these expanders either, for much the same reason). Also, some cartridges use the /IO select lines for copy protection; expanders often fool with these too.

Question: is the vic-20 still available?

Hazy Dave: I'm pretty sure it's discontinued in general, though I did hear a rumor that occasionally they whip up a batch for some large buyer. They don't go retail anymore. You might try to find a used one if you're really in need.

Question: when is Jeff coming in?

Hazy Dave: Probably never. Would help speed things up.

Question: I want to know why I can't load everything on my 128 that my friend can load on his 64? I am using 64 mode and it simply won't work when I run it.

Hazy Dave: If you're using a C128 and a 1541, there are about 2 programs that won't work, and the newer versions will. Both of these are due to a bug in a few writers' code that writes to reserved VIC chip registers. If you're using a 1571 in 1541 mode, there are a few more things that die, due to copy protection conflicts; at least half of these are due to bugs in code that runs on the 1571, the other rough half is real 1571 incompatibility (at the hardware level, developers were told long ago that many of the things done for CP [copy protection] wouldn't be supported). If you're having trouble with more than a few programs though, you're doing something wrong.

Question: Will the bugs that are fixed in the 128d and its drive affect the current software for the c-64?

Hazy Dave: The C64 ROM in the C128 is exactly the same ROM as in all later C64s. That's not changing, ever. The new 1571 ROM may be a bit more 1541 compatible; I believe they've fixed a bug or two. It's not going to be any less compatible.

Question: About the C128-D. I don't really see it lasting very long against the Amiga 500 if Commodore doesn't do something to help it. Is there a chance of bundling the true 80-column version of GEOS, or Lou Wallace's BASIC 8.0, or both, with it?

Hazy Dave: The C128D may or may not do well against the A500; that remains to be seen. There's certainly a chance of 80 column GEOS bundled, though I don't know enough about all the details involved to make a guess at if this will really happen or not. Same with BASIC 8.0. Of course, the C128 has a larger software base than the Amiga (or anything

else, for that matter), and the software's cheaper. I'd personally like to see them both do well.

Question: Do you know of any soft or hardware that will enable me to lay C64 graphics over an already recorded VCR tape. Some sort of character generator maybe?

Hazy Dave: There's nothing short of a special purpose VCR that'll let you do that. With 2 VCRs you can do video titling with a GenLocking device. However, it takes special hardware to GenLock something. The C64/C128 can't be GenLocked, so unless you have a VCR that's capable of being GenLocked itself, you'll need an Amiga for this.

Question: Do you use RAM expanders?

Hazy Dave: Yes! I keep a 1750 in my C128D at all times.

Question: Dave, I got your circuit from



CIS that allows you to use an IBM TTL mono monitor with the Amiga, and it works. GREAT! Anyway, is there a chance of taking this further by using a frequency doubler to drive a monitor (like the NEC MultiSync) at 60 Hz and 35 MHz bandwidth to eliminate the flicker?

Hazy Dave: A frequency doubler is a much more complex circuit. You need lots of video DRAM ,and you'll need an Analog to Digital converter into the video DRAM circuit, and a Digital to Analog converter on the way out. 'Twould be expensive, much more so than a high persistence phosphor monitor (of course, if you already have the NEC, the cost might be comparable).

Question: HOW MANY MODELS OF C128s ARE THERE?

Hazy Dave: 2 right now, C128 and C128D. The C128 comes in PAL and NTSC versions; the C128D I think is only PAL. The NEW C128D is a forthcoming 3rd model, and should be available in both video flavors.

Question: why would a program work on a 64 but not work on a 128 in 64 mode?

Hazy Dave: Only 2 reasons: 1) The program depended on writing to SID images (no one does this, it's S-T-U-P-I-D). 2) The program writes to a reserved VIC register, specifically, register $30, which contains the 2MHz and TEST mode bits. If this gets overwritten (usually by a bug that loads 2 extra BYTES of data to the VIC registers), you'll get a fantastic screen display, which reflects the data activity on the RAM bus. We actually used to use this display for primitive debugging — you get regular patterns if your program is in a loop. The FAST command in BASIC also blanks the VIC screen, so this is only accessible by directly writing $30. Changing the TEST bit can cause random things to happen.

Question: Any truth to the rumor that CBM will drop the 128 if the PC-10/20 does well?

Hazy Dave: No. CBM would only drop the C128 if the C128 does poorly. Nothing else would directly affect it.

Question: Can c128 be traded for c128d, ever?

Hazy Dave: There's no official trade-up policy, though I can certainly suggest it to the higher powers.

Question: can't you type a little faster?

Hazy Dave: I can, but Q-LINK can't.

Question: What software companies are now writing for the 128 in 128 mode?

Hazy Dave: Batteries Included, Digital Solutions, Timeworks, Activision (productivity branch, can't recall the name), Berkeley Softworks, Abacus, Progressive Peripherals, CMS Software Systems, Professional Software, EPYX, probably a bunch more I can't think of right now.

Question: What makes you think anyone would buy the 128D over the A500? The support for the C128 has been very, very bad. Plus the overall price of the A500 will be less the A500. A500 $600 with disk drive. C128 with less power plus disk drive $500.

Hazy Dave: C128 has great support. There are more titles of any kind except perhaps animation programs that run on the C128. More productivity packages in C128 mode than on the Amiga so far. The Amiga's fault is it's newer and harder to write for (you can't just peek and poke on the Amiga). The A500 will be a very good deal, I'm not arguing that. You will, however, pay about twice the price for any Amiga software as C128 software (I KNOW; I've had both machines for over a year). Personally, as long as they're buying Commodore, I'm happy.

Question: What improvement does a 64K video RAM give? Can it be retrofitted into a regular 128?

Hazy Dave: ONE MORE TIME… Right off the bat, 64K Video RAM won't do anything for you. That's because programs assume you've only got 16K. What you can do with it is create multiple text and hires graphics screens, and even color 640×200 graphic screens. A stock C128 can be upgraded just by changing the 16K (4416 DRAMS, 120 ns) for 64K parts (4464 DRAMs, 120ns). On most machines these are soldered in, so you'll need a soldering iron and some skill at removing soldered-in chips (18 pin DIP, standard thin package).

Question: Why have there been no games for the great c128???

Hazy Dave: Why would you do it? The only real reason for C128 mode games would be to either take advantage of the 128K of RAM or the 80-column screen. Now, you can't get 80-column graphics going all that fast usually, and they're not needed for games (even Amiga video games generally run in 320×200 mode). And if you make an 80-column only video game, only a subset of C128 owners (those with 80-column monitors) will buy it. So if you can make your program run in 64K, as

most video games will, you'll have a market about 7 times larger if you make the game run on the C64 instead of the C128 only. C128 owners can still use it. But the only way you'll see games in C128 mode is if they have to run in C128 mode, because they depend on C128 features.

Question: Is the expansion port on the C-128D in the same place? I'm asking since the taller case would tend to prevent me seeing the cartridges (Partner 128 & Mach 128) and the switches on my expander board.

Hazy Dave: I think it is. The original C128D had the Cartridge Port in the same place (same PC board, after all) but it was raised above the desk, causing all kinds of things to hang uncomfortably out of the port. The newer machine returns to the desk level, so things are properly supported, and I believe just about in the same place.

Question: What was wrong that the FCC didn't like?! And can I get one despite the FCC!

Hazy Dave: The original C128D was very, very noisy. Part of the reason was the separate 1571 and C128 circuit boards in the same case (less shielding), part of the reason was that the main circuit board was about 1 1/2" above the table. A bad thing for FCC. The new machine's single circuit board at table level and metal case all are designed to correct these problems. You could probably find an old C128D in Germany or maybe England, but you'd have to either buy a PAL monitor or order an NTSC VIC chip and crystal to use it effectively in the US. You'd also get a weird keyboard.

Question: Why not put a 1581 in the 128D instead of a 1571? Will the 128d support the 1581?

Hazy Dave: We actually considered this. The problem is that all C64 and C128 software comes on 5 1/4" disk. So you'd by a machine with a build-in drive, but be forced to buy a second drive to run any software, at least until vendors started selling it on 3 1/2" format. See Apple II G-Wiz for more information on this problem. The C128D does work just fine with the 1581 (folks who've used the '81 never like going back the 1571).

Question: Jeff, Why do I sometimes get the modem activated when there is no term program enabled?

Hazy Dave: The 1670 modem powers up with answer mode set on. The solution is to turn the machine off, send the command ATS0=0 to the modem whenever it’s reset, or get one of those in-line phone switches from Radio Shack.

Question: Why did it take so long for the 128D to come out in the US? It’s been in the European market for some time.

Hazy Dave: I think some of it was marketing issues. Additionally, the C128D as is in Europe was much more expensive to make than the C128/1571 combination, and it wouldn't pass FCC Class B certification. The newer C128D solves these problems, though it’s still a marketing decision to decide to sell the C128D in the US, which is what determines the priority given to developing the new model.

Question: what is better about the D than the regular, besides the built-in drive?

Hazy Dave: 64K video RAM, detached keyboard, internal power supply. The monitor sits on top.

Question: When you upgrade the 128's memory, is the memory in the 64 mode also increased?

Hazy Dave: The memory upgrade is for 8563 video memory. The C64 can access this, though there's no reason. This memory isn't normally accessible by the processor, so in general the upgrade doesn't affect C64 mode at all.

Question: When will the Amiga 500 be available?



Hazy Dave: I think they're planning to start shipping in June. Developers currently have units.

Question: Can we buy it in Europe and bring it back to the States?
Hazy Dave: You can, but you'll have a PAL VIC chip and crystal, plus a European keyboard and character ROM. No big deal, you can probably get the VIC chip and character ROM from CBM service or maybe Jameco and the crystal just about anywhere. You probably can't get a US keyboard, but the keyboard and character ROM shouldn't be a big problem.

Question: Will commodore be coming out with any more modems?

Hazy Dave: I don't know of anything planned beyond the 1680.

Question: Where can i get an sx-64?

Hazy Dave: They're not made anymore, though you might find one in a closeout store or very big computer store. I've seen them for very good prices in the back of magazines like Compute!

Question: How bout a 64D?

Hazy Dave: No such thing.

Question: What's new in CP/M mode? Anything?

Hazy Dave: The only change to CP/M system software will be some form of upgrade to support the 1581 drive. This comes with the 1581, at least it’s currently planned. The 1581 supports disk partitions, so you can have one disk with both CP/M and Commodore format on it.

Question: what was wrong with the 1541C (latch)?? is the 64C 100% 64 compatible?
Hazy Dave: I don't know of the 1541 problem. I've heard of some kind of problem with later 1541s, though I'm not actually sure these were production units. The circuit board used in the C64C is still the same circuit board used in the later C64s. There have been several revisions of the C64 circuit board so far, most of which improve reliability and lower cost (well, it did come out at

Question: JEFF: How come the 1670 'breaks down' so much? I know 5 people who have had 3 1670's in the past 6 months. They refuse to buy another modem.

Hazy Dave: Jeff might know something about returns, but I've had my 1670 since about 3 months before they were released and have had no troubles. In fact, it outlasted the Hayes I had on my Amiga. The reason modems MAY die more often than other computer devices is lightning. An electrical storm here killed my $250.00 Hayes SmartModem while leaving the 1670 alone. What make it even stranger is that in my setup, the phone line goes from the wall though the 1670 into the Hayes (which is now a 1680).

Comment: Dave, Fred's file is here as "ROM UPDATE", [uploaded] by wjt3.

Hazy Dave: I was hoping it was. thanks!

Question: Has anybody at Commodore considered substituting a V20 or maybe a V30 for the Z80 in the C128 and offering both CP/M and CP/M 86 for it. I believe quite a bit of software came out for CP/M 86, especially in Europe.

Hazy Dave: Actually, we had thought about that, or possibly even CP/M and MS-DOS. The problem is that the V20 isn't Z-80 compatible, only 8080 compatible. That would mean a complete rewrite of CP/M for the C128 and a loss of much compatibility with the CP/M world, most of which requires a Z-80 these days. It would, of course, also require a new circuit design, but the V20 is better behaved than the Z-80 about many things, so that wouldn't be so bad.

Question: Will the Okidata 20 work with GEOpaint on a C64 without additional equipment?



Hazy Dave: You'll need an OKI personality module. I know they make one for the Okimate 10, but I'm not sure about the 20. The OKI printers all need personality modules, no matter which machine they run on. And you'd have to check to see if GEOS supports the OKI printers, I think it does, but I'm not sure.

Question: Can I use 245K chips in the 128 wiring pin 1 of the rams to multiplexer?

Hazy Dave: You mean 256K chips, but no, you can't. Because of the tight timing constraints of the C128, any memory upgrade would have to go in 64K banks. The new C128D uses 4 64Kx4 chips in it to make its full 128K. Any 256K machine would need 8 64Kx4 (or 16 more 64Kx1, but that starts getting into other problems). And of course, a new MMU capable of banking the 256K.

Question: I am wondering why commodore invested in 128-d if companies won't write programs now for the c128

Hazy Dave: As I mentioned, there are plenty of companies writing software for the C128. If you can't understand why they aren't writing games, then you probably don't understand the C128 very well.

Question: I'm using a 1571 disk drive. However, I am having trouble using double-sided disks. When I format the 2nd side, side 1 is lost. Am I doing something wrong? or do I have a problem with the drives?

Hazy Dave: It sounds like you're very confused. If you weren't, you wouldn't have know which side you are writing to. That's because the 1571 writes to both side simultaneously. That's why it's called a DOUBLE-SIDED DRIVE. The 1541 is a SINGLE-SIDED DRIVE, and it writes to only one side of the disk unless you flip the disk over, which really isn't a good idea, because flipping the disk over will wear it out very quickly in most cases.

Comment: I have 3 questions in the queue that you've pretty much answered in answering other people's similar questions. Feel free to skip over them. I've got to go now and wanted to say "THANKS!"

Question: How much memory can the c128 hold?

Hazy Dave: 128K RAM, 64K Video RAM, 48K system ROM, 32K internal function ROM, and 32K external function ROM

Question: According to page 11 of April's Update, you will be with us April 13th. And…….. along with answering our 128 questions, you will be telling us about the Amiga 2000. :)



Hazy Dave: Yes, that's true. I've been working on the A2000 since November.

Question: Have they come out with a c128 version of Geos in 128 mode?

Hazy Dave: I don't think it's out yet. At CES, Berkeley showed an early version of an 80 column, C128 mode GEOS, so it's definitely in the works.

Question: After years of planning the dual-disk drive into the c-128, why was the 1572 cancelled before its release??

Hazy Dave: The 1572 was planned for a total of less than a month or so. A total of six prototypes were built up, with 1571 software kludged to make it look like it was running as a 1572. That's it. All there ever was. Period. End of tale.

Question: I'm a CQS (Commodore Qualified Service) center. Will schematics for ram expansions be available for repair?

Hazy Dave: We have them, but I'm not sure if service ever sent any out or not. Though there's really not that much you could repair, the darn thing's only got 1 chip other than the DRAMS and a handful of resistors and capacitors.

Question: Is the built in drive number on the 128 8 or did you all think of something tricky?

Hazy Dave: No, it's drive 8. Doing tricky things would be nice, but it would also insure that at least some software out there would bypass that trick and refuse to work.

Question: Will there be a dual 1581?

Hazy Dave: No. No dual drives, says Commodore. Not my decision or in any way related to me. None of our machines have "dual" drives.

Question: will the 1581 be compatible with the Amiga??

Hazy Dave: An Amiga can read 1581 disks, no problem. I doubt the 1581 or much of anything else, for that matter, can read an Amiga disk. The reason is that just about every machine in the world except for the Amiga uses a disk controller with hardware that turns MFM encoded data from the disk (or GCR as the case may be) into real data. The Amiga's disk controller reads the raw MFM encoded data into the Amiga's memory, and it's decoded essentially under program control (with the Blitter though, so it's fast). Thus, the Amiga can probably decode most any format with a clever enough program, but most disk controllers don't allow you to NOT decode what they read in.

Question: Dave, just to stir things up before I go. have you heard about the 2 meg 3.5 disc format? Would that be a 1591? G'nite!

Hazy Dave: I've heard of a few new techniques that could probably get you at least two meg on a 3.5 inch disk. Things like RLL and ERLL encoding and higher density surfaces may make floppies get really interesting in the next few years.

Question: What is the baud rate of the 1680 modem?

Hazy Dave: 300/1200, like the 1670. The 1680 is RS-232 compatible, for Amiga or PC clone, and it implements more Hayes commands than the 1670. Well, it looks like I've run out of questions. Amazing, it's only slightly after two. I've got a few hours to get some work done before I have to get some sleep so I can make it to work by 10 or so tomorrow. 'Nite, all, thanks for coming. Next month we get to talk about Amiga 2000 stuff too. Yea.

— END OF TRANSCRIPT —

DUO OF DEALS

CLEAR FRAMEWORK FOR COMMODORE AND AMIGA

by Damien McFerran



Image: Damien McFerran

If you've been following the saga of Commodore and its Amiga computer over the decades, then you are aware it's a right old mess, as the rights to the company's IP were carved up when it went bust back in the '90s.

However, a pair of new deals have just been inked which could help unify the world of Commodore, despite the fact that there are still multiple companies involved.

Commodore International – the revived version of the business headed up by Christian “Perifractic” Simpson – will be licensing "software and documentation for Commodore's 8-bit computers" from Amiga Corporation, the firm which holds the rights to "source code and binaries for CBM 8-bit and Amiga software and firmware, hardware designs, manufacturing data, documentation, marketing assets, and other materials," as well as Amiga trademarks.

Via this arrangement, Amiga Corporation says that it now "recognizes" the ownership of Commodore International and will license "CBM 8-bit software and documentation to Commodore for use in its products."

The statement adds:

"Following the 1996 liquidation of Escom, one of Amiga's predecessors in interest, the "Commodore" and "C=" trademarks followed a separate path from the other assets. Tulip Computers acquired the trademarks and used them for Commodore-branded PCs. Subsequent transfers brought the trademarks to the present Commodore [International] company. In the agreement, Amiga recognizes this ownership. The copyrights in the historical software, documentation, and other Commodore and Amiga works remained in the chain of title now continued by Amiga. Under the same agreement, Amiga licenses CBM 8-bit software and documentation to Commodore for use in its products.

Amiga retains the right to use and reproduce the Commodore marks in historical and descriptive contexts, including as they appear in original software, documentation, notices, keyboard symbols, on-screen texts, and other content.

Amiga is permitted to continue using the Commodore trademarks in a “historical or descriptive context,” such as old documentation, copyright notices in existing software, or as symbols on a keyboard."

The second agreement is with Hyperion, which works with Amiga Operating System. "Hyperion Entertainment will continue to

develop and distribute AmigaOS 4 under license from Amiga," says the statement. "The rights in the independently developed AmigaOS 4 code have never been disputed, and the new agreement preserves that position while clearly defining the Amiga software and trademarks licensed for continued AmigaOS 4 development and commercialization."

According to Amiga Corporation, "the circle is closing" on the Amiga story forty-two years after Commodore and Amiga joined forces in 1984, when Commodore purchased the Amiga Corporation for $24 million from its creators, Jay Miner, R.J. Mical, and Dale Luck. "Apart from the 'Commodore' and 'C=' marks, the principal rights and assets of the Commodore and Amiga eras rest with Amiga," adds the statement.

In the short term, it would seem the agreement with Commodore International paves the way for the company to produce a reproduction of the Amiga home computer to go alongside its FPGA-based C64 Ultimate.

LOADSTAR ON-LINE

The classic Loadstar 64/128 disk magazines and newsletters are available on-line at

https://loadstarce.com/

To download any issue, you must register by giving your screen nickname, e-mail address, and password.

There is even a forum where you can discuss Loadstar!



MONTHLY MEETING REPORTS

By Robert Bernardo and/or Dick Estel

SEPTEMBER 2026

Member David showed up first at the meeting spot, followed by Robert a few minutes later. After Robert had set up the majority of his equipment on the tables, Roger and his brother Aaron appeared and set up the club's C128 system. At first, the members thought that Aaron was going to stay for the meeting, but he departed in order to do other things. At 12:30, Bruce came in. Also a young couple came up to the members, curious about what was happening. Roger gave them an explanation while Robert gave them a copy of the July-August Interface newsletter.

After lunch, Robert started the meeting with a call for old business. Under that category, he reminded everybody about the October picnic lunch which will be held on the third Sunday at Andiamo Ristorante Italiano in Clovis, CA.

Robert reminded that in early November he would be going to Ray Carlsen's house in

southern Washington state. He would be bringing Commodore gear for Ray to upgrade and/or repair. Bruce asked if Ray worked on internal Amiga power supplies, and Robert said he only worked on external Amiga power bricks. Roger said that the club's C128 needed to have its serial port examined for looseness and that it needed a general check-up. Robert said that the computer also needed upgrade ROM's and upgraded video RAM (if not installed already). Robert got that C128 at the end of meeting and put it into his car for transport up to Ray. Robert also mentioned that he wanted Ray to construct a serial port Y-adapter just like the one Roger was using to connect his SD2IEC to the club computer.

Under new business, Robert spoke of the upcoming shows, Bay Area Maker Faire the next weekend and Rocklin Maker Faire the weekend after that. At Bay Area Faire, he would be exhibiting Commodore and Amiga computers (and an Atari 800XL!) under the banner of the Vintage Computer Festival, along with other computer users and their different computer platforms. At the Rocklin Maker Faire, he would be basically exhibiting his same computers, but he would be alone under the Classic Sacramento Area Computers! (CSAC!) banner.

For the faires, his 2003 Buick Century, which he considered the small car, was already stuffed with Dell LCD monitors, long power strips, electrical extension cords, and computers. He said that he had to pick up folding chairs from his brother later on and grab more Commodores and Amigas from his house in Stockton.

Robert mentioned that AmigaKit's A1200NG and the A600GS would soon be updated with AmiPrint, a printing program/driver that would be able to use all modern USB/network printers with those machines. Bruce asked if AmiPrint would work with older Amigas that had serial and parallel ports, but Robert said no.

Discussion crossed into the subject of Artificial Intelligence. Robert remarked that more, new C64 and Amiga games were being built with the help of A.I.. Even Roger had used A.I. to help with his Blender projects and with his coding of getting C64 programs transmitted via a CRT video image.

Robert had ordered a new Commodore TAC-2 joystick for $50. With shipping and tax, that became almost $70!

Robert had brought in two, heavy, banker boxes full of classic Amiga magazines, like Amiga World and Amiga Format. These had been donated by a Long Beach user (the club viewed his donated software and A2500 at the previous meeting). The magazines were stuffed solidly in the boxes and in correct order. Bruce wanted both boxes, because he said that the magazines would be full of tutorials. Those boxes were loaded into his car later, and Robert was relieved that he didn't have to take those home.

With all business finished, Robert proceeded with the software presentations on his Ultimate 64 Elite. First of all, Robert ran the classic program, "9 to 5 Typing." He did it in honor of the passing of Dolly Parton, famed country singer. At the main menu, the program played Dolly's 9 to 5 music, the SID

version of course. The program was divided into 2 sections. The first section had typing exercises, and second had typing games. However, Bruce recognized that some of the exercises and games had scenes out of the 9 to 5 movie! Robert had never seen the movie.

In one exercise, an animated Dolly was being chased by her boss; the faster you typed the words, the quicker the boss became which led to the boss catching up to Dolly. In one game, every time you typed a word, Dolly would fire a rifle at her boss.

Because September was the 60th anniversary of Star Trek, Robert ran several Star Trek games and demos. He was having difficulty running the programs; they would crash, and Robert had to turn off the Super Snapshot fast loader to stop the crashing. Without the fast loader, the programs took a long, long time to load. He later found out the cause of the crashing. The U64 had inadvertently been set to NTSC video mode, and he had been using the PAL version of the Super Snapshot. Yes, incompatibility problems. He solved it by changing the U64 to PAL; now he could fast load the programs without any crashes.

Well, two programs still took a long time to load. Perhaps they were bypassing the fast loader. Robert had no patience for those and continued on with the other compliant programs. There were the demos, like Star Trek V which showed an image plus a scrolly message or Star Treck which had animated PETSCII characters in a parody. Some were games, like Star Trek II which was a traditional, non-animated simulation in which you had to shoot the Klingons (K on the screen) with your Enterprise (E on the screen) or Star Trek: Rebel Universe which was a very graphical adventure that required you to click on images of the crew characters.



Screen of Star Trek: Rebel Universe

Though there was no time to use the club's C128, Robert noted that there were over 300 C128 games listed at

https://www.lemon64.com/games/list.php?list_title=c128&page=1

Some of them were from classic Compute!'s Gazette magazine and Loadstar 128 diskzine, some were in German, and several were new to Robert.

OCTOBER 2026

As happens every year, the October meeting is the Fresno Commodore User Group's annual Picnic Lunch. This has been a 30-year tradition, but for most of these years the setting is not like a typical picnic. Instead we meet at a restaurant that is NOT our regular meeting place, with no equipment and minimal Commodore discussion.

Our choice this year was Andiamo Ristorante, an excellent Italian eatery in Clovis, one we'd

patronized previously. Our party included five members and one guest – Robert Bernardo, Roger Van Pelt, Dick Estel, Bruce Nieman, and Dave Smith and his daughter Megan.



Picnic lunch, Andiamo's Ristorante Italiano, Oct. 18, 2026

In honor of the club's 45th anniversary (coming in November), Robert brought in a small chocolate bar cake, and the excellent service we received included small plates and clean forks to use for our dessert, even though the restaurant had a very nice (and pricey) dessert menu. Our server had even used the Commodore 64 in his younger days.

We all picked from the lunch special – Dick and Roger had calzone dishes, Dave and Megan had chicken parmesian, Bruce had fettucine, and Robert had the white fish plate.

Small talk ran the gamut from movies to cameras to travel, especially in northern California. Robert had brought a book entitled, "52 Weekend Adventures in Northern California." Dick and Dave had been to many places listed in the book, whereas Robert had only been to a few places.



Dick had run across several club rosters from the early 1990's and had brought them in for the group's enjoyment. The 1994 list included life member Keith Sohm (who is now a very occasional visitor) as well as Dick and Dave. Dave left the group not long after and re-joined us a few years ago. There were also a few others who'd been in touch with the group recently, at least a half dozen that we knew had passed on, and a long list of names whose fate and whereabouts were unknown. The membership count on that list was 41.

We also reviewed a list of non-members who received our newsletter – library branches, some local stores, mail order companies, and mainly other clubs with which we exchanged. On the September 1991 list, we identified over 70 of the listings as computer clubs, most obviously oriented to the C64/128. Ah, yes – the glory days!

FCUG continues and is one of less than twenty Commodore and Amiga clubs still in existence. And FCUG is the oldest in the United States!

Club Officers

Officers and Keypersons

President …..... Robert Bernardo
Vice-president ..... Roger Van Pelt
Secretary/Treasurer …..... Dick Estel
The Interface Editor .....….. Robert Bernardo
Editor emeritus……..Lenard Roach
Librarian …..... Roger Van Pelt
Club equipment …..... Roger Van Pelt
Meeting place reservation ..... Dick Estel

-The Small Print-

The Fresno Commodore User Group is a club whose members share an interest in Commodore 8-bit and Amiga computers. Our mailing address is 185 W. Pilgrim Lane, Clovis, CA 93612. We meet monthly in the meeting room of Panera Bread, 3590 West Shaw, Fresno, CA. The meetings generally include demonstrations, discussion, and individual help.

Dues are $12 for 12 months. New members receive a "New Member Disk" containing a number of useful Commodore 8-bit utilities. Members receive a subscription to The Interface newsletter, access to the public domain disk library, technical assistance, and reduced prices on selected software/hardware.

Permission to reproduce content of The Interface is granted provided credit is given to the source, and when identified, the author. Club members are encouraged to submit articles, tips, or ideas for articles.

Disclaimer The club, its officers, members, and authors are not responsible for the accuracy of the contents of The Interface or the results of actions based on its contents.

Our disk library contains over 3,000 public domain programs for the C64 and C128. Members are entitled to copies of these disks at no cost if a blank disk is provided. We do not deal with pirated, copyrighted, violent, or obscene programs. Please call our attention to any programs found in our library which may violate these standards.