The Interface

"Taking 8-Bits Into The 21ˢᵗ Century"

Zing into Spring with that Commodore Thing

We welcome new life in both nature as well as Commodore

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THE EDITOR'S GODZILLA

-by Lenard R. Roach

"THE MISSION, IF YOU CHOOSE TO ACCEPT IT ..."

"Lenard, Kathy wants to see you in her office," a co-worker told me as we passed by each other in the Junior's Department.

It was 1989. I was gainfully employed at the Pickles Department Store in a luxurious area mall in the rich city of Overland Park, Kansas. As a day custodian along with six others in my department, my job was to get the store cleaned up from the previous day's traffic in the four hours from 06:00 to 10:00. After 10:00, we were to do touch up cleaning like vacuuming carpets and washing door glass while being as inconspicuous as possible. If we were approached by a patron seeking help with anything, we were to address them to the nearest store clerk and apologize for any inconvenience. Basically, we were to be dumb lackeys who can't tell a screwdriver from a cab driver. We were supposed to be people only good to do tasks of the lowest order. With that in mind I was surprised that I was asked to report to the head of the morale department's office. As a young man still trying to figure out what it was like to be a newlywed as well as the father of a toddler, occasionally I did do things that were less than "inconspicuous," and I was sure that I was to report to Kathy for another lecture on positive morale among my fellow employees as well as customer/employee relations.

I headed toward Customer Service. I waved to all the women who were getting ready to start the day of listening to customer complaints, and I went through a second set of double doors where all the various heads of management had their offices. The morale department office was at the end of the hall and to the right. I stepped up to the door frame and tapped on Kathy's open door to signify my arrival.

Kathy, a modestly dressed woman with bifocals and short hair that was slowly turning silver, looked up from her paperwork to acknowledge my entrance. She pointed to one of the two chairs in front of her desk, indicating that this boy better sit down. I took my seat and once again expected to hear a fifteen or twenty-minute lecture on conduct and self-control on the sales floor. After making a few more jots on the paper that she was working on, she set the sheet aside and looked up to address me. For some reason, Kathy had a smile on her face as we locked eyes. A creepy chill started to come over me as she started to speak.

"Do you know why I called you into my office?"

I hesitated for a minute trying to comprehend the meaning of her question. I had an idea, and if I was in trouble, I'd better play it safe and answer truthfully.

"Not really, no. How can I help?"

She got up from her desk and walked to her door.

"Take a walk with me down the hall."

After a disappointing summer,
Humpty Dumpty had a great fall.

That was an odd request. Why should I have to take a walk down the hall, especially with her? I just came through there. However, without hesitation I got up from my chair, and like a lemming, followed her out the door and back down the hall towards customer service. As we stepped out into the open area before the turn that took a person to the sales floor, Kathy stopped and turned to face a cork bulletin board that hung on the wall across from the customer service desk. Aside from the dozens of push pins that made the board look like acupuncture gone awry, there were notices from the various store departments. Some of these announcements advertised special discounts for employees if they were to shop that particular department, some were special parties for employees who had excellent sales, and some were sales' fliers for some object, like a car or a piece of furniture that was only being offered to store employees. Other miscellaneous ads also were on the board.

I looked at Kathy awaiting her to speak first and to tell me why we were staring at the bulletin board. She remained quiet. Getting anxious, I decided to break the silence.

"Do you want me to remove all the old ads off the board and rearrange the ads that remain in some sort of order?"

Kathy looked at me over her bifocals. "Don't you think that this board could use some pizzazz? A little something extra?"

She's asking ME? My first thought of the board was to walk away from it and leave well enough alone, but I knew that was not the answer that Kathy was seeking. I tried to relax a bit, but the thought of another chewing out for improper behavior still dwelt in the back of my mind. I tried a more direct approach.

"What did you have in mind?" I asked.

"Do you still have that Commodore computer at your house?"

What does my Commodore computer have to do with the bulletin board? I inquired further, trying to get into the real meaning behind our visit to the bulletin board on the wall.

"Yes. It's the house computer. The kids use it to play games, and my wife uses it for budgeting and keeping track of other records pertaining to the house. Why?"

Kathy looked straight at me and prepared to reveal her true intentions behind her summoning me away from my duties.

"I was wondering if you can make me a banner to pin up over the bulletin board to let the staff know what this board is all about. Kind of give the board some importance."

A program immediately came to mind, but I had to warn Kathy of the lack of luster that the Commodore printer would produce. "Any banner would only be in black and white," I said while taking a quick glance at her. "Are you sure you don't want anything with a little more oomph... something that... maybe... and IBM or Apple?"

"You're the only known computer geek in the store. That's why I came to you. Do you think you can do it?"

I didn't hesitate. "Sure. When do you want it?"

"There's no hurry, but try to get it done as soon as you can."

I took a moment to think about how Kathy phrased that last statement. What a contradiction of terms! However, I took the heart of her message to mean that she wanted something done

as soon as possible. I didn't see the hurry. The bulletin board has been hanging on that wall close to customer service ever since I was first hired many, many moons ago. However, I decided to tackle the job after I got home from work. I knew exactly what to do. I went back to work and dwelled on what needed to be done on my trusty Commodore.

The 14:30 chime sounded, and everyone who worked the 06:00 shift came from all areas of the store to cruise down the hall. At the very end of the hall and to the left was the service door to the outside. Close to the door was the time clock where everyone who was not on salary punched in and out. Everyone grabbed their own time card, and one at a time, punched out to go home. I was among the crowd. I had an assignment, and if it involved my using my Commodore 64, then I was all over it.

When I walked into my home on Central Avenue a half hour later, I passed over the three cats who came to greet me as I walked through the front door and went directly to the computer room where my trusty Commodore 64, my reliable 1541 disk drive, and my ever ready MPS 802 printer resided on a simulated oak computer desk. This desk had so many spaces to store items that the manufacturer of the furniture should have called it "The Kangaroo." Some cubbies built into the desk even had doors that took keys to open. Even a file cabinet was built right into the desk. It was a one-man working station for anything that was office related. In front of the desk was a plush, simulated black leather, rolling chair. The desk and the Commodore 64 was the command center to the Roach household. Programming, word-processing, bills, budgeting, and a host of other home items were done in this room. I filed through the disks in my keeper that sat on the top of the desk and found the program I was planning to use for this project – The Print Shop.

When I got my copy of The Print Shop from the Commodore Man in Grain Valley, Missouri some time ago, it was used and came without a user's manual. I hadn't seriously worked with the program since I purchased it. I sat down at the Commodore desk and started working with the software to learn the ins-and-outs. The good thing about the software was that most of the functions of the program were explained on screen.

The very first thing was to figure out what to say on a banner. It slipped my mind to ask Kathy what she wanted to say on the banner when we were having our meeting at the bulletin board. I was sure that she would want something professional and direct like "CURRENT EVENTS," but it seemed to be lacking flavor. I knew I had to spice it up, to give it some zing that could only come from the mind of Mama and Papa Roach's number three son.

I came up with several ideas that would both draw attention as well as bring a smile to the reader. I came up with things like "PAY ATTENTION!," "LOOKIE HERE!," "HEY YOU!," and "DON'T MISS OUT!" among other sayings that I put down on my notepad. I stopped when I had about a dozen sayings. I took a break after penning the sayings down on paper and got a twenty-ounce Mello Yello Zero out of the refrigerator. I sat on the sofa in the living room and stared at a blank television screen, thinking of more ideas while sipping on the Mello Yello and resting. I needed to blank my mind so I could start fresh on the project. I took enough time out to finish my soda, and then I went back to work with The Print Shop.

I narrowed down the phrases on my list to just four, occasionally going back over the list to see if I could use some of the rejected sayings in a banner for work, only to dump them again. I

stayed with my final four: "NOW DIG THIS!," "CHECK THIS OUT!," "ABOUT THE STORE," and, of course, "CURRENT EVENTS." The last two seemed to fit the professional attitude of the store while the first pair added a little flair while to get the message across. With these four sayings on my pad, I knew I had to choose only one … or did I? I came with the idea to print all four banners and let Kathy decide which one (or which ones) that she would like to use.

When I started using the Print Shop, my problem was that I was not currently in possession of a graphics printer. Trying to print off graphics using the MPS 802 proved to be an interesting experience as the 802 began to print only one or two lines of garbage on a sheet of pin-feed paper and then advance to the next page, only to do the same function again. This experiment began to make a mess out of my Commodore computer room as paper began to gather all over the floor. Why I didn't deactivate the printer before this mess occurred? Possibly I thought that the printer needed to advance several pages before the actual work could begin. In any case, I finally gained some common sense and shut down the 802 to prevent more paper being wasted. Obviously, I needed to invest in a graphics printer. A visit to the Commodore Man was now necessary.

The next day I called the Commodore Man (his identity will remain a secret in this article as part of the superhero "Rules Of Conduct") and asked if he had a graphics printer in his vast collection. He laughed and said that's about all he had left in the way of printers. Apparently, I bought the last business printer from him (the MPS 802) on my last visit to his shop. I left in my brown 1985 Chevrolet Cavalier for the residence of the Commodore Man.

Forty-five minutes after my departure from my home in Coronado Hills, I arrived in the driveway of a white, two-story, ranch-style home on

Golfview Drive in Grain Valley, Missouri. I stepped out of the Cavalier and began to ascend the steps leading to the front door, making sure to hang onto the metal railing so I would not stumble on the very steep steps. With his wooden cane in hand, the hairy, dwarf-shaped Commodore Man met me at the door before I got there. He greeted me, and we quickly descended the stairs located on the inside of his home and proceeded into his "underground lair" (the basement). As I turned left around the furnace, I was introduced again to his vast collection of Commodore computers, drives of all kinds (both 5.25's and 3.5's), printers of all styles and makes, and metal shelving completely full of Commodore software. The Commodore Man basically dealt in all items for the Commodore 64 and Commodore 128 computers with very little in his collection dealing with the Amiga or any other Commodore-related machines. On his workbench covered with Commodore chips, resistors, capacitors, and other motherboard parts, the Commodore Man had already set aside the best of his graphics printers – a Commodore MPS 803.

"This will do the job," he said as he pointed his cane to the workbench and the 803.

"Does it come with a user's manual?" I asked.

The Commodore Man laughed. "You already know how to run a Commodore printer, Lenard," he said. "A user's manual would be moot for a guy like you."

This was a great compliment from someone who not only repaired but also programmed rings around me when it came to coding on the Commodore. Yes, when it came to either the Commodore 64 or the Commodore 128, the Commodore Man was the "go to" guy in the entire Kansas City Metro area. He was so good at what he did that some of the metro bulletin boards showed signs of disdain to almost sheer hatred;

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they must have been jealous over his talents and created "hate posts" on their own BBS's. Those who logged in shared how much hate they had for him, sometimes using words that shouldn't be repeated in this article out of respect to younger readers.

But I digress. While there to purchase the MPS 803, I shopped his massive collection of software for more productivity software as well as a game or two. Placing a fresh $100 bill in the hand of the Commodore Man, I gathered up my Commodore treasures, said my good-byes to him, and headed upstairs towards the front door. On my way out, I came across the Commodore Man's wife, JoAnne. I had to do a Groucho Marx, "Hello, I must be going" routine to the blonde bombshell (the Commodore Man was a lucky gremlin to get such an attractive woman for a wife), and marched out the door, down the steps, and to my Cavalier. I carefully loaded the Commodore equipment into the back seat, climbed into the front seat, and began the journey back to Kansas City.

One of the nice things about owning a Commodore set-up was that the designers of the machine made absolutely sure you could piggyback hardware with the simple use of a serial bus cable. I didn't need to remove the MPS 802 printer but simply find a place on the computer stand to put the MPS 803, hook up a serial cable, and I was ready to go. I sat down in my imitation leather office chair, poised myself over the Commodore 64 keyboard, and began the process of loading The Print Shop into the machine. With the main menu on the monitor, I typed up a sample text to run to the 803 printer, and before long … BOTH printers began printing out text with the 802 starting to make the paper mess on the floor again.

What did I do wrong? Argh! I was a dumb pickle head! I never thought until that moment to change the channel on my 802 from four to five and leave the 803 on channel four, since it seemed that The Print Shop was hard-wired to work on that particular channel.

With this latest snafu fixed, I started again on the task of making the banners that Kathy wanted. One at a time, I printed off each of the four banners. Printing at only 32 cps, it took the rest of the afternoon and part of the evening to get all four banners printed. Sadly, the pin-feed paper I was using was a little old, and therefore, the perforations refused to hold together well. It was time to get the Scotch tape out and do some mending as each banner was made. Before long, I had all four banners printed and ready to show at the store the next day.

I got to Pickles Department Store at 06:00 to start my duties, the four banners folded up into four 8.5" by 11" stacks to turn into Kathy. As the custodian, I had access to all the offices for the purpose of cleaning, so I simply unlocked the door to Kathy's office, placed the small piles of printer paper on the center of her desk, and then went to start my duties.

Time passed.

It was close to noon before I received the page over the intercom to report to customer service. I thought that the area was probably needing their trash pulled again, so I grabbed a large, gray, waste cart from the dock and went towards the nerve center of customer/employee relations.

As I turned the corner that expanded into the customer service area, I came across Kathy standing in the middle of the walkway. She was looking at the wall where the bulletin board was hanging. When she heard the rattling of the old gray cart, she turned her head towards my direction. She grabbed the cart to stop its motion, which caused me to slightly bump into the cart handle.

"What are you doing?" she asked.

"Getting the trash. I thought that was why I was called up here."

"No," she said. She pointed to the top of the bulletin board. "What do you think?"

I scanned up the bulletin board. What I saw was one of the banners that I printed the night before hanging at the top of it. This one read, "CURRENT EVENTS."

Kathy started in on her commentary of my work. "I got all four of your banners and looked them over carefully. You were right. They did lack luster, but I will take the other banners home to the grandkids and let them go nuts with some crayons and make them more eye appealing. I chose this one, because it seemed to be the most generic, so it wouldn't upset too many people in upper management."

"Then what's with taking the others home and color them if this is the one you want?" I asked.

Kathy turned to me and took her glasses off to make sure she was looking me in the eyes.

"I decided that I am going to use all four banners, changing them out each week. In four weeks I will have gone through them all, so the next month I will start over. By changing the overhead message, this should get more interest to the board. I want to get some color, so it can be more of an attention getter. Who else better to do that than the grandkids?"

I didn't know what to think of this. She said she only wanted one, but now she wanted all four? I guess that something inside me knew that she was going to take this route, but I really was expecting to find her trash can full of my banners. I think I may have fooled myself.

I stood there for a few seconds and looked at the board. The banner slightly drooped down over the top of the board, making something of a crescent moon shape that looked like a boat floating lazily in a lagoon. Each break in the paper was slightly torn a little bit from the bottom to create the effect. I was surprised on how the banner was engineered to do that. I supposed that when you had grandchildren, you became a little more creative than when you raised your own children. I began to turn the trash cart around and head back to the dock when Kathy called out to me again.

"Lenard. Thank you."

I looked over my shoulder at Kathy, smiled, and then continued on towards the dock with the trash cart. Another mission for the Commodore computer was filed and put away, but before I could go, Kathy called out to me one more time.

"Lenard, did you ever think of making a coloring book out of these little pictures that your computer can make?"

Now THERE was an idea...

EPILOGUE

Christmas 1989 was coming up and as with most families, money was tight, so people had to be creative when it came to presents and cards. The Roach family was no different. The Print Shop allowed me to create Christmas cards cheaply (with the emphasis on "cheap") and humorously. At the bottom of each card, a person can make up a one-line blurb to the recipient. As an amateur comedian, I had to make that one line a joke of some kind. Most cards have the printing company name and logo placed on that line; I thought I could do the same but with my own little twist. Each card would have a different "manufacturer" to each person getting the card. I came up with

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weird names like "PROSTATE EXAM CARD CO." and "THE DRUNKEN TOADSTOOL," just to name a few. When the people got my cards in the mail, they reported to me that they enjoyed the one-liners more than the heartfelt message that I put within the card. And graphics? Sorry, my recipients were not impressed. They wanted the jokes. The life of a comedian, no matter how brief on stage, follows the performer for the rest of their lives.
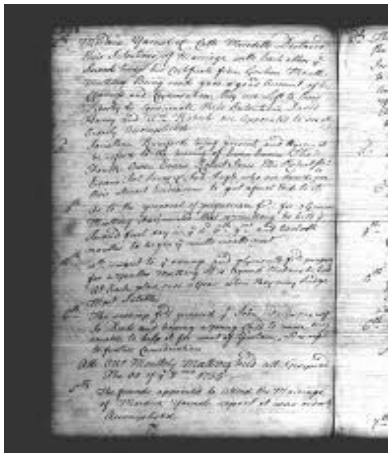
MONTHLY MEETING REPORTS
-by Robert Bernardo & Dick Estel

MARCH 2024

Exclaiming to each other, "I can't believe it's March already," four members of the Fresno Commodore User Group gathered at Panera Bread restaurant on March 2, an extremely rare Saturday meeting.

Robert, Dave, Bruce and Dick discussed a number of topics before the official start of the meeting, including the fact that Robert was leaving for L.A. immediately after the meeting, flying from there to New Zealand and Australia.

The longest leg of his flight would be a mind-boggling 17 hours.

Dave told us about a huge treasure trove of photos that were uncovered recently. Vivian Maier took between 100 and 150 thousand photos in her life, many not even developed at the time of discovery. There is some amazing work among the thousands, and some are on line at https://www.vivianmaier.com/.

Robert attended the Chinese New Year Parade in San Francisco for the first time in many years and was looking forward to the release of a film biography of William Shatner in March. Robert and Dick, along with the fictional Sheldon Cooper, were absolutely certain that Star Trek: the Original Series was the best of the various Star franchises.

Robert had a chart of the various retro gaming consoles that have been released and will be coming in the future. This is what seems to be the THE series -- THEC64 Mini and THEC64 Maxi, THEVIC20, THEA400 Mini, and THE400 (Atari).

Things were ramping up for the Commodore LA Super Show (CLASS) in April with a list of raffle and door prizes posted at https://portcommodore.com/dokuwiki/doku.php?id=class:door_prizes. Dick was planning to ride down with Bruce, a one-day trip that would leave little time for his three or four daily naps. Roger may also join them.

Bruce recently acquired a collection of nine Amazing Amiga magazines which could be downloaded as .PDF files.

After the February meeting, Robert and Roger spent about six hours at Bernardo Studios (the University Square Hotel), filming Roger's presentation on Slow Scan TV, which could be

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used to send photos over the air via ham radio to a Commodore 64. A similar program, FAX-64, was available to send faxes. The filmed presentation will be shown at CLASS.

Both Robert and Roger talked about the highs and lows of filming another presentation for CLASS, a high – having good lighting on the set for once, a low – having difficulty in converting a PC graphic into what the Commodore could display via Slow Scan TV.

Demonstrations began with the TeensyRom device which plugged into the Commodore 64/128 cartridge port. The device had Ethernet, USB, microUSB, and microSD ports. The TeensyROM, which acted like a cartridge, had flash memory that contained some pre-loaded programs ready to use – a few games, a few graphics, a few utilities, a terminal program (CCGMS 6.01), and music creation programs (Cynthcart and Station64). Robert went through those built-in programs, though he didn't own a MIDI keyboard to try out its usability with MIDI.

The TeensyROM used .CRT (cartridge) images or .PRG's, and Robert had discovered the OneLoad C64 Collection on the Internet. All of the 2,100 games in the collection were zipped up in one big file, which he downloaded and unzipped into .CRT's. He remarked that it took a long time to transfer the all the .CRT's onto a USB flash drive. Then when he moved from the device's flash memory menu to the USB menu, it took awhile before anything was read onto the screen; the device was getting all the 2,100 games into its directory. When the games were finally listed, it was easy to scroll up or down through the listing and then press RETURN on the selected game. When finished with the game, to get back to the menu a user had to press the RESTART button on the device. Now that the list of games had been read into the device's memory, the game list was presented more immediately, i.e., no having to wait for all 2,100 games to be read into the directory again.

APRIL 2024

The pre-meeting discussion on April 21 was far-ranging. With Robert, Roger, Dave, Dick and Michael in attendance, we first learned that one of our former meeting places, Bobby Salazar's Cantina, had burned down. The restaurant has been closed for a while, and the fire department described the fire as "suspicious." (See below for a follow-up.) The building had stood there since at least the mid-1950's, serving up food under several different names. When Dick was in college in the 1950s, it was the Ranch Kitchen and was owned by Dick's boss at Mars Drive-In.

Musing on the passage of time, Robert told of visiting his sister and nephews recently. In his mind the "boys" were in their early to mid-20's, but to Robert's dismay, he learned they were now 28 and 30.

The club members were intrigued to learn that the SpaceX rocket was built partly with parts from Home Depot. Common hardware that cost 20 dollars or so for this project was listed for thousands when purchased for US Government projects.

Harkening back in time, Dave mentioned that he was once a model railroad enthusiast and still has the rolling stock stored in his garage. Roger reminisced about his Star Wars slot car track, and Dick told of his toy electric train that was at least 75 years old. The cars and a short section of track were on display in his home but were no longer operational.

Then we noticed that we were a computer club and got down to business. Robert had attended the L.A. Maker Faire, accompanied by Jerold Kress, the filmmaker who had been documenting his

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Commodore activities for over a decade. Jerold was going to exhibit music creation programs and hardware on the C64, Nintendo Entertainment System, and the Sega Genesis. Robert was going to originally display an A3000, a Commodore PC, and Ultimate 64. However, when the A3000 had boot-up problems before the Faire began, Robert replaced it with a back-up computer, an A600.

All went well with the exhibit until about 3 p.m. The A600 started locking up, the screen freezing with no input from the keyboard nor mouse. When the computer was reset, more locking up happened, and programs wouldn't load or would crash. These were symptoms of overheating; the computer was unusable for the rest of the afternoon, and Robert had to tell disappointed attendees that they couldn't play any games on it. (Weeks later, Robert installed a ventilated expansion bay cover – which he ordered from England. Now with more air flow, the A600 did not repeat its overheating.)

The members were all anxious to hear about the Commodore L.A. Super Show (CLASS), which drew over 40 people and made enough money to pay for next year's CLASS. In addition to Robert, Bruce and Roger were in attendance. Major raffle prizes included a CMD hard drive, and a 1581 drive and a 1541-II drive from Al Jackson's collection in Las Vegas,.

In addition to his pre-recorded talk on ham radio, Roger did a live presentation of receiving weather information via a shortwave radio. Unfortunately, the stations that he tuned to were not broadcasting any weather info at that time, and so, Roger had to cut short the presentation.

The pre-recorded demo got a lot of positive comment and questions, since attendees did not know such a use of the C64 and were surprised that images could be sent via ham radio. Dick wondered if this was similar to the process

referred to in photo credits seen in many newspaper articles in the 20th century, "AP wire photo."

Another very good and interesting speaker was David Pleasance from England, who spoke for over an hour about his time working for Commodore UK.

CLASS photos are on line at

http://blog.retro-link.com/2024/04/pictures-from-commodore-los-angeles.html

http://blog.retro-link.com/2024/04/another-set-of-pics-from-commodore-los.html

http://blog.retro-link.com/2024/04/yet-more-photos-from-commodore-los.html

At the latest Southern California Commodore & Amiga Network meeting, Robert discovered that the meeting venue, Panera Bread, had covered the electric outlets on the side of the restaurant that the club used. If all of the remaing outlets get covered, the club will move to another venue, a game store in Burbank.

Robert noted that the Pacific Commodore Expo (PaCommEx) will be held June 22 and 23 at the Old Rainier Brewery in Seattle.

It was agreed to move the September meeting to the 4th Sunday, September 22. This will allow attendance by our newspaper editor, Lenard Roach, and his new bride (currently fiancée) Barbara Baker.

Moving on to demos, Robert had brought a huge stack of Amiga Disks of the Month from The Other Group of Amigoids (TOGA). The first two or three programs did not seem to work until Robert discovered that a video cable was not fully plugged into the Amiga 600. Correcting this

allowed us to see Wonderboy, a Mario-style game; Snakes, where the player fired at totem poles and other targets, and several others.

For most of the rest of the meeting, Robert went through several of the DOM's and also several new C64 games. Michael, however, was more interested in playing anything associated with Super Mario Bros.. Amiga clones of SMB were not good enough for him, and Robert eventually had to boot up the SMB on the Ultimate 64 just so Michael could play it there.

At the end of the meeting, Roger showed off several VIC-20 ham radio cartridges and a cassette which were given to the club several meetings ago. The cartridges and cassette had typewritten labeling with esoteric names, such as CQWPXTEST-CW and QCWA LOG CW, all from Kustom Computer Response of Helotes, Texas. Roger theorized that the former owner of the cartridges/cassette had programmed ham radio applications in BASIC and then had the programs burned onto ROM for the cartridges. Roger said he would demonstrate these cartridges at a future meeting.

After the meeting, Robert drove to Bobby Salazar's Cantina in order to assess the damage. To his surprise, he found the building standing with some windows boarded up, the front door locked with a paper sign directing customers to another Bobby Salazar's, and furniture stacked up in the empty interior.

FAST HACK'EM:
THE BEST C64 DISK COPIER?

-by Guest Contributor Dave Farquhar

Disk copiers were long a taboo subject that mainstream computer publications didn't like to talk about. But not here. In this blog post, we'll talk about one of the most innovative and popular copiers of all time for the Commodore 64, a program called Fast Hack'em, by Basement Boys Software. We'll also talk about the company's connection to Nintendo, but let's not get too far ahead of ourselves just yet.

Fast Hack'em was introduced in 1985 by Basement Boys Software, a small operation in Oregon that may have been as few as two people. It was far from the first piece of software of its kind on the market. It wasn't even the first piece of software of its kind Mike J. Henry wrote. But it was fast without compromising significantly on reliability. And if you had dual 1541 drives or a MSD SD-2, you could copy disks without tying up your computer.

COPYING DISKS WITHOUT A COMPUTER

Fast Hack'em had a simple, efficient text-mode user interface.

The main feature that people remember about Fast Hack'em, 39 years after its initial release, was its ability to copy disks without a computer. If you loaded up either the dual 1541 copier or the MSD SD-2 copier, after the copy initiated, you could unplug the computer from the disk drives. Even without a computer, the drives continued copying. And if you wanted to make another copy, you just changed one or both disks. The

drives sensed the change and continued copying the new set of disks on their own.

Meanwhile, you could play cartridge based games on your computer to pass the time while you were copying disks.

The reason this worked was because Commodore and compatible disk drives had their own embedded CPU and RAM. Fast Hack'em worked by downloading a small copy program to the drives that worked completely independently. After the computer had finished downloading the software and instructed the drives to launch it, the drives could just work on their own.

I only used this feature one time, when a friend brought his drive over. But it worked really well and we thought it was cool.

WHY THE CONTROVERSY?

Commodore disk drives included a program that could copy disks. Fast Hack'em wouldn't have been controversial if the only difference between it and the copy program Commodore included for free was that Fast Hack'em was 15 times faster and you could unplug your computer and do something else with it while the copying happened.

The controversy was with the other capabilities included in Fast Hack'em. Fast Hack'em also had the ability to copy protected commercial software.

Most Commodore software had digital rights management (DRM) on it. Back then we didn't call it DRM, we called it copy protection. But it was just an early form of DRM. The way it usually worked was the publisher would include intentional errors on the disk. When you loaded the disk, program would look for those errors. And if it didn't find the error, it would refuse to run. And sometimes it would behave rudely and format the disk, or even in extreme cases attempt to damage the disk drive.

A program called a nibbler would duplicate the

errors on the disks rather than skipping the errors the way a conventional copier would. Fast Hack'em was in this category. And when its regular copier couldn't copy something, it had a specialized copier that might be able to defeat the toughest protections.

Software publishers didn't like nibblers. In their view, everyone who bought a nibbler would proceed to make copies of every piece of software they owned, and give copies to all of their friends. They in turn would do the same. So they saw every sale of a nibbler as thousands of dollars of lost revenue. If not tens of thousands of dollars.

WHY MAGAZINES DIDN'T TALK MUCH ABOUT NIBBLERS

This is a long way of saying why information about programs like Fast Hack'em is difficult to find. The magazines at the time took their advertising. But most were reluctant to review them or endorse them, lest they anger their other advertisers. *Info*, the edgiest of the Commodore magazines of the 1980s, talked about nibblers more than any of the others.

Nibblers were legal as long as you only used them to make backup copies of software you purchased legally. But there was a perception they were illegal.

After the final version of Fast Hack'em was released in 1989, it only took a few months for rumors to start that the Basement Boys were in jail.

HISTORY OF FAST HACK'EM

Blue Max, an early C-64 game that was widely pirated, was cracked by Bandit Boy. I found speculation that Mike J Henry was Bandit Boy and the name morphed into Basement Boys.

I can't verify this first part of the story. According to legend, Mike J Henry learned the inner workings of the Commodore 64 and 1541 disk drive cracking games while he was still in high school, using the alias "Bandit Boy." That led to him writing a disk nibbler routine. The alias "Bandit Boy" later morphed into "Basement Boys."

One popular and widely copied game Bandit Boy cracked was the 1983 hit Blue Max. I have seen and played this crack myself.

I can't confirm Mike J Henry was Bandit Boy. But the story is plausible.

TURNING THAT NIBBLER ROUTINE INTO A PRODUCT

Mike J. Henry co-authored parts of Di-Sector 2.0, a nibbler from Starpoint Software, released in the summer of 1984 along with Starpoint founder Bruce Q. Hammond.

The December 1985/January 1986 issue of *Info* magazine states that Mike J Henry struck out on his own after Di-Sector. Indeed, version 3.0 of Di-Sector from 1985 credits Scott M. Blum as Hammond's co-author.

Henry next teamed up with Mr. Nike, an alias used by Lawrence Hiler, and they released the first version of Fast Hack'em in 1985. New releases followed in rapid fashion until 1989. The program cost $30, but you could upgrade to the newest version at any time by mailing in your official disk along with $6 to their post office box in Portland, and they would send you the updated version.

New versions of the software stopped at version 9.5 in 1989, which led to speculation about legal trouble. My opinion is they moved on to other things. Basement Boys Software also did business as Chip Level Designs, and one of the Chip Level Designs products was a modification to turn the MSD SD-2 into a stand alone disk copier. It worked like that module in Fast Hack'em, but ran from a ROM chip directly in the MSD.

In 1990, Basement Boys also released a copier called Fast Trac 128. This was a copier for the Commodore 128, rather than the Commodore 64, and it specialized in taking advantage of features only available on the Commodore 128 when used in conjunction with the 1571 and 1581 drives.

WHAT FAST HACK'EM WAS LIKE

The software was utilitarian and unpretentious. It operated in text mode, with no graphics, used the standard character set built into ROM, and the only things it did for visual effects were some smooth scrolling and changing the background and border colors and changing some of the colors of the text to give visual cues. Unlike later copiers, the flair was all very low overhead.

And while other magazines were reluctant to talk about the software other than accepting its advertising, *Info* absolutely loved Fast Hack'em. They went so far as to say on page 58 of their September-October 1985 issue that it was their preferred in-house copier.

After a disappointing summer,
Humpty Dumpty had a great fall.

WHY FAST HACK'EM STOPPED IN 1989

Fast Hack'em cost $29.95. Most magazines were reluctant to review it, but they'd take their advertising.

Lawrence Hiler gave a talk in 2005 about the history of Basement Boys, but he didn't allow recordings. I wasn't present, so I don't have a first hand account of what he said. So there may be some gaps in this that he's filled in.

In the late 1980s, copy protection schemes grew even more complicated, beyond what an unmodified drive could copy in some instances. Products to add memory to the 1541 along with copiers that used those expansions started appearing. This new generation of copiers also started taking advantage of other hardware such as memory expansion. These two factors made Fast Hack'em borderline obsolete.

Working as Chip Level Designs, they turned to hardware products, including a memory expansion board called the RAMBOard, the copy product for the MSD SD-2, and a video RAM upgrade for the Commodore 128. And they turned to Software Support International, of Vancouver Washington, to handle distribution.

They didn't write a nibbler to take advantage of their own memory expansion board. Instead, they left that to Software Support International, who developed a nibbler called Renegade, which they

quickly changed to Maverick due to trademark issues. If you didn't have the Chip Level Designs RAM expansion, Maverick didn't do much that Fast Hack'em didn't already do, and Fast Hack'em had lower overhead. But Maverick supported all of the late 80s Commodore peripherals like RAM expansion.

I think they made the conscious decision to create hardware products that would be difficult to pirate, give a software copier one more try with the 128 product, and decide where to go from there. There was no version 2.0 of the 128 product.

But that wasn't the end of the Basement Boys. And I'm not just talking about people continuing to use pirated copies of Fast Hack'em after you couldn't buy it anymore.

THE BASEMENT BOYS, CHIP LEVEL DESIGNS, AND NINTENDO

The Basement Boys, Chip Level Designs, Lawrence Hiler, Mike J Henry, or some combination of the four share credits on approximately 25 Super Nintendo cartridges. After their Commodore products had run their course, they created music and sound effects code for the Super Nintendo. They licensed the code to game publishers to use in their games.

This isn't as absurd of a landing place as it might seem. The Super Nintendo used a variation of the 65816 CPU, which is a direct descendant of the 6502 CPUs in Commodore 8-bit products. The Super Nintendo was the last mass market product to use that CPU series, so it was a natural landing place for two skilled 6502 programmers. Not only that, their experience writing useful 6502 programs that could run inside the tight confines of a 1541 disk drive's two kilobytes of RAM was useful on the Super Nintendo. The Super Nintendo competed directly with the Sega Genesis, which had a much more powerful CPU. Applying their skills to squeezing as much performance as possible out of the Super

Nintendo was a natural fit.

I don't know what happened after the Super Nintendo ran its course. Hiler made some appearances in the 2003-2005 time frame in the Pacific Northwest, but he has kept a much lower profile than many other Commodore programmers from the 1980s. Mike J Henry has kept an even lower profile, leading to speculation that Henry and Hiler were the same person.

But they were certainly young enough at the time to learn a new processor and/or a higher level programming language and find other ways to make a living as a programmer. I'm sure they did fine for themselves and are probably near retirement age at this point.

COMMODORE 64 OUTPERFORMS IBM's QUANTUM SYSTEM?

-by Guest Contributor Mark Tyson

— sarcastic researchers say 1 MHz computer is faster, more efficient, and decently accurate. A 'Qommodore 64' [is] born from 2,500 lines of MOS 6502 assembly code.

(Image credit: Pexels / William Warby)

A paper released during the SIGBOVIK 2024 conference details an attempt to simulate the IBM 'quantum utility' experiment on a Commodore 64. The idea might seem preposterous -- pitting a 40-year-old home computer against a device powered by 127-Qubit 'Eagle' quantum processing unit (QPU). However, the anonymous researcher(s) conclude that the 'Qommodore 64' performed faster, and more efficiently, than IBM's pride-and-joy, while being "decently accurate on this problem."

At the beginning of the paper, the researchers admit that their 'Qommodore 64' project is "a joke," but, sadly for IBM, its proof of quantum utility was also built upon shaky foundations, and the Qommodore 64 team came up with some convincing-looking benchmarks. There was some controversy about IBM's claims at the time, and we are reminded it took just five days for the quantum experiment to be simulated on an ordinary MacBook M1 Pro laptop. The jokey Quantum Disadvantage paper ports this experiment to a machine packing the far more humble MOS Technology 6510 processor.

Figure 2: The experimental setup – a Commodore 64 is connected to a monitor through a composite video to HDMI converter, with the code cartridge inserted into the expansion port.

After a disappointing summer,
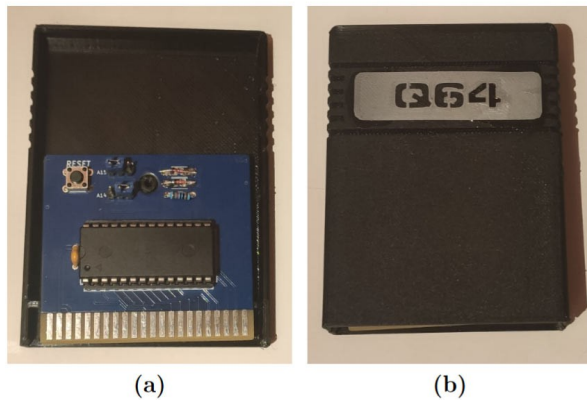Humpty Dumpty had a great fall.

Figure 3: The cartridge constructed to house the code for this project. (a) Inside is a PCB designed by Github user SukkoPera [8], with an Atmel AT28C256 ROM chip holding the code. (b) The housing is 3D-printed to resemble original Commodore 64 cartridges.

(Image credit: SIGBOVIK 2024)

To get deep into the weeds with the quantum theory and math behind the quantum utility experiment, please follow the PDF link -- https://www.sigbovik.org/2024/proceedings.pdf. However, to summarize, the C64-based experiment uses the sparse Pauli dynamics technique developed by Begušić, Hejazi, and Chan to approximate the behavior of ferromagnetic materials. Famously, IBM claimed such calculations were "too difficult to perform on a classical computer to an acceptable accuracy, using the leading approximation techniques," recalls the paper. Not quite, and as already mentioned above, an ordinary laptop can obtain similar results.

The anonymous C64 user(s) provide some interesting details of their quantum-defeating feat. Their aggressively truncated and shallow depth-first search model used just 15kB of the spacious 64kB available on the iconic Commodore machine. Meanwhile, the final code consisted of about 2,500 lines of 6502 assembly, stored on a cartridge that fitted in the C64's expansion port. This code was handled by the mighty 1 MHz 8-bit MOS 6510 CPU. The C64 took approx 4 minutes per data point. (Testing the same code on a modern laptop achieved roughly 800µs per data point.)

In conclusion, the researcher(s) asserts that the 'Qommodore 64' is "faster than the quantum device datapoint-for-datapoint… it is much more energy efficient… and it is decently accurate on this problem." On the topic of how applicable this research is to other quantum problems, it is snarkily suggested that "it probably won't work on almost any other problem (but then again, neither do quantum computers right now)." Overall, it is difficult to know whether the results are entirely genuine, though a lot of detail is provided and the linked research references in the paper seem genuine.

We know many readers are retro-computing enthusiasts, as well as DIYers and makers. So it is good to know that the author(s) of this paper say that they will provide source code to allow others to replicate their results. However, source code will only be supplied in one of three formats, they say: "a copy handwritten on papyrus, a slide-show of blurry screenshots recorded on a VHS tape, or that I dictate it to you personally over the phone." So please add an extra pinch of salt to this story for that.

MSD SUPER DISK DRIVE FOR THE C64 AND PET

-by Guest Contributor Dave Farquhar

I saw a YouTube video last week about the MSD Super Disk Drive, and the creator of the video said he couldn't find any information about the drive. So I figured I would write something about it, since I kind of like Commodore stuff, and MSD was the first company to make third-party Commodore-compatible disk drives. But that's not the only thing that made the MSD drives special.

After a disappointing summer, Humpty Dumpty had a great fall.

WHO MSD WAS

This ad for the MSD SD-1 and SD-2 drives from 1984 touts its advantages.

MSD stands for Micro Systems Development, and it was headquartered in Dallas. Some of its key personnel had worked at Commodore, but they split from Commodore in 1982 to start making Commodore compatible peripherals, including disk drives.

The MSD Super Disk drives, also known as the SD-1 and SD-2, were the right product at the right time when they were released. They were compatible with both the Commodore IEC interface and the IEE-488 interface. This meant the MSD drives worked with the PET / CBM series of computers and also worked with the VIC-20 and Commodore 64. They connect up just like a Commodore disk drive would, and they use the same commands.

In 1983 when MSD released its drives, Commodore was selling C-64 and VIC-20 stuff nearly as fast as they could make it. The lack of production capacity meant PET/CBM owners might not necessarily be able to buy a

Commodore disk drive if they needed one. But they could buy an MSD drive.

It was also a compelling alternative to the Commodore 1541 drive. The 1541 was in short supply, but it also wasn't exactly beloved. The MSD drives offered a sturdy alternative.

MSD BUILD QUALITY

MSD drives used modified TEC FB-501 floppy drive mechanisms and a cream-colored steel enclosure. Unlike many Commodore drives, MSD oriented the drive mechanism vertically, so even the dual drive SD-2 model took less space on a desk than a 1541. At the time, critics considered them superior to the Alps and Mitsumi mechanisms that Commodore used, although when you find one today, you'll find it needs capacitors replaced. Replace the caps and fix any damage to the traces they left behind, and they're still great.

The metal case dissipated heat well, so BBS operators liked the MSD drives as well, for the time period when they could get them.

They were expensive, but there was a reason for that. The additional circuitry to support both bus types increased the cost. Also, the price was relative. At a retail price of $399 for the SD-1 and $699 for the SD-2, the MSD drives cost more than a 1541, but they cost less than Commodore charged for a comparable PET drive.

WHAT WAS SPECIAL ABOUT MSD DRIVES

Here's an SFD-1001 in use with a Commodore hard drive and an MSD dual disk drive. A setup like this wouldn't have been uncommon for running a Commodore BBS in the 1980s.

The MSD SD-2 is especially beloved because it is the only drive that can plug into a stock VIC-20/64/128 that acts as a dual drive on a single device number like Commodore's PET drives. This means its built-in DOS has a function to copy disks, and it generally copies more quickly than a pair of 1541 or similar drives would since it doesn't have to send the data over the IEC bus. An MSD could copy a disk in two minutes, versus 35 minutes for two stock 1541s using standard copy software.

There was a third-party add-on from a company called Chip Level Designs that turned the SD-2 into a standalone disk duplicator, and another that allowed it to duplicate disks in 22 seconds. Third-party products to speed up copying between two 1541s also existed. But none of them could match the modified MSD SD-2 for speed.

For those who didn't want to modify their drives, some versions of the popular copy program Fast Hack'em included an MSD SD-2 copier that took advantage of the two drives to make copies of disks in about 60 seconds, twice as fast as the drive's normal speed, and you could unplug the drive from the computer after it loaded and the MSD SD-2 would keep copying disks as you

swapped them. Fast Hack'em also included advanced copiers for the MSD SD-2 that could copy disks that the regular copier couldn't, albeit more slowly.

MSD COMPATIBILITY WITH THE COMMODORE DRIVES

The ironic thing is that the MSD drive was really adept at copying disks that it couldn't load. Commodore software, especially games, typically had copy protection on them, a 1980s form of DRM. These DRM schemes often relied on idiosyncrasies of the 1541 itself, and they would fail on many third party drives.

The 1541, unlike this drives for many other computers, was a small computer itself. It has its own dedicated 6502 CPU, peripheral chips, RAM, and ROM. Commodore DOS resided in the disk drive itself, not in the computer.

Besides using different drive mechanisms, MSD built its disk drive a little differently than Commodore did inside too. For one thing, instead of a 6502, it used a Rockwell 6511Q micro-controller. This meant that DRM schemes that loaded their own code into a 1541 had trouble with the MSD since it wasn't the same architecture. The problem was not at all unlike trying to run IBM PC software on a Dec Rainbow or Tandy 2000. Some things worked, but a lot of things didn't.

THE MSD DRIVES' LEGACY

Over time, various 1541 clones appeared with better degrees of compatibility, notably the Excelerator Plus. They frequently violated Commodore copyrights in the process, but they cost less and were compatible. So they caused problems for MSD while Commodore played whack-a-mole suing the makers of the third party drives. Around 1986, MSD stopped selling the drives.

Today, the drives are rare and expensive. They never sold in the kind of volumes the 1541 did.

After a disappointing summer,
Humpty Dumpty had a great fall.

And the dual drive version in particular attained legendary status. If you ever attended a Commodore copy party in the 1980s, you almost assuredly saw at least one person with a SX-64 portable and an MSD SD-2 connected to it. Those types of events were exactly the place I encountered them.

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—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.

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