THE EDITOR'S GODZILLA

- by Lenard R. Roach

With the coming of spring comes the ever tiring job of trying to keep maintenance, including the ever-so-popular spring cleaning event and the upcoming seasonal yard mowing and trimming.

Usually a savvy guy like myself can work these little hiccups of the yearly schedule into the routine, but put that with the weirdness of the 2013 weather patterns for the mid-west and you don't know either to get out the mower or the snow shovel. Just this May, we had one day that started off in the mid to upper 70s, then dropped to just above 40 in a 24 hour period, with two inches of snow falling the next day.

Put on top of this the fact that my copy of our favorite computer, the Commodore, sits next to dormant as my wonderful Commodore MPS-803 printer sits in its perch high above the computer stand with no ribbon because, for some reason unknown to man or science, it likes to chew up its own ribbons. It is weird to think that this inanimate object has developed such an insatiable appetite for ink and fibrous material. Blessed be Robert Bernardo and FCUG for their massive collection of various Commodore and Commodore compatible 9-pin printers that are at the purchase for the general Commodore public. Robert was gracious enough to pick through the stacks of printers and select for me a great looking and fully functional Star NX-1000 graphics and NLQ printer. All that awaits for it to get from California to Kansas via our wonderful United State Postal system.

However, one of the prime motivators to get the printer from the west coast to the prairie is this little thing called finance, or money, for the layman tongue. Now one would figure that a simple cost of $30 should be quite manageable for a big entrepreneur like myself, but alas, when one such as I takes his paltry paycheck and parties like a rock star for a weekend, it would bring one to the conclusion that such finances would be in short supply. Such is the case in this instance, so much so that, once again, the newsletter is being done on one of those "heretic" computers, as the late Lord Ronin would have put it. Please forgive my shortsightedness.

But yet still, it would behoove one newsletter editor such as myself to use a fully functional PC that does not suffer the ravages of viruses and malware. Such is the case on my laptop as I allowed my computer to go online without the aid of virus protection (the anti-virus warrantee expired). This strange set of programs destroyed some installer like Wizard and it also disabled my copy of Word 07. I considered it weird that these viruses knew exactly what programs on my PC that I frequent, and yet it didn't destroy my web browser,

but, then again, why destroy your only way in or out of the machine.

Hence, a trip to the north central part of Missouri was in the offing as in the small town of Keytesville resided my graphics designer and technician. This little burg is two hours east of Kansas City and well worth the drive. The gentlemen there revamped my hard drive, eradicated my OS (since it was so severely infected), re-installed a more cooperative version of Vista, and swapped out my damaged Word 07 for a lighter version of Word 03. He also tried to up my memory to three gigs but the old processor decided that it was too much and balked at the attempt, so I reside with my regular 1.5 gigs. Now one reading this may think I spent a bundle on all this service, but in reality the cost was quite minuscule and he even accepted payments for the work, which was quickly mounted up in two weeks. For those wanting to use this person for service of a PC, then please use the Facebook search bar and type in: "Tim's Tech Shop." Mention my name for any possible discounts or secret sales.

With my whining and badgering over my latest computer escapade now behind us, let us take a look as to what lies ahead...

Book sales have dropped to zero as, I think, those who were interested in a copy have either purchased one or have borrowed it from a friend or a lending library. Author House is still calling and emailing me saying this book has the potential for success, but like any for-profit business, they want me to front the bill for their market strategies. I don't possess the fat wallet I had back in 2010 when the book came out, so all this has to remain ideas until such a time as I can re-invest in the work. Right now I'm trying to populate the book shelves with my 2012 release of comedy skits for puppets to teach pre-schoolers the Ten Commandments. I can say this about "Run/Stop-Restore...," it certainly has done better in sales than my new book.

I talked to our illustrious president of FCUG on how I can best strategize a rekindling of interest in "Run/Stop-Restore..." He has suggested a sale of some kind wherein if an interested party would purchase a copy of "Run/Stop-Restore...," they could receive, as a gift or bonus, something else along that line.

Hereby, then, are a couple of suggestions based on Robert's recommendation: First, anybody from the reading of this article to July 31st who purchases a copy of "Run/Stop-Restore: 10th Anniversary Edition" at retail ($17.99) can get a copy of either my newest book, "Skits For 2nd Hand Puppets Volume 1: The Ten Commandments" (regularly $14.95) or "Run/Stop-Restore" (which the latter is only available from my website (regularly $9.99)) for 50% off the cover price. Second, if owning a library of Lenard Roach's books is not to your liking, then anyone who purchases a copy of "Run/Stop-Restore: 10th Anniversary Edition" at retail can get a copy of my Commodore software collection of programs written by me for only $2.99 (regularly $5.99).

Inside this software package is included a copy of the following:

"Check it Out" - the 1992 classic

program that allows you to write onto your blank wallet size check, completely revised.

"Check Mate" - the companion program to "Check it Out" that saves check data to a sequential file for easy reading and editing.

"The Envelope Addressor V4.2" - the classic 2005 program that allows you to print and edit address information onto almost any size envelope.

"The Ledger" - a little program that allows you to keep a running tab on your bills and save them each into their own sequential file.

As an added bonus is also included a copy of Rex Dey's popular classic, "Money Manager," the program that inspired the idea for the previous programs. This program is a handy tool to use for keeping track of your checkbook and budgeting for the future.

I can hear Robert saying, "Sweeten the deal just a little bit more..."

Okay, whoever buys a copy of "Run/Stop-Restore: 10th Anniversary Edition" during the days of CommVEx (July 26-29, 2013) you can have the option of getting either "Skits For 2nd Hand Puppets Volume 1: The Ten Commandments" or the original "Run/Stop-Restore" for 75% off the cover price, and, if requested, I will throw in a copy of my software collection for an extra .99! That's only for the duration of CommVEx 2013. I'm already shaking in my shoes to make such a bear bonz deal, so please grab this up while you can.

For ordering any of these materials, please visit my website, lenardroach.com, or if you're ordering during the 2013 CommVEx, please indicate which products you want along with a check for the amount made out to Lenard Roach and give it to Robert, he will see to it that I get your order.

Sorry, no CODs, credit or debit cards will be accepted during the promotion. Cash and checks are okay.

I now turn you over to your regularly scheduled newsletter. Enjoy ...

MONTHLY MEETING NOTES

-by Dick Estel & Robert Bernardo

MARCH 2013

I arrived at our meeting spot on time. Member Louis and son Vincent came in a few minutes later. As usual, my car was packed to the gills (if cars have gills) with plenty of computer equipment, more so this time because the previous weekend I had been at the Southern California Commodore & Amiga Network meeting in Northridge and the day before I had been at The Other Group of Amigoids meeting in San Jose. Going to 3 meetings in one

month is not very common for me, but this time all the stars aligned. (Actually, the following Friday I went to Amiga engineer R.J. Mical's dinner party, so that could be considered a fourth meeting!)

Louis, Vincent, and I unpacked the computer goodies out of my car. Roger showed up in a little bit and helped unpack the car, too. As I set up the C64C, 1541, LCD monitor, VIC-20, Amiga 1200 tower, and Sony VGA monitor, Brad snuck into the meeting room, this time with two little guests, his children, Caitlin and William. Only Dick Estel was absent, gone on another journey.

When everything was set up, we sat down to our usual routine, which was to order food and make small talk. Louis and Vincent had their usual appetizer tray, I had the seafood burrito, Roger had a combination lunch, and Brad ordered quesadillas for the kids. While we waited, on the Mac laptop computer I showed the two versions of the SX-64 commercial we had filmed back in January. However, with Brad's kids being there, I knew that we'd have to make version 3 of the commercial. (Read below!)

With the laptop computer, we were to Google video-chat with out-of-town member, Charles Gutman. Earlier that month, after going to a concert in Riverside, I rendezvoused with him, selling him a couple of C64s (he wanted the SID chips), and clearing out the garbage on his Windows laptop which prepped that laptop for Google video-chatting. Unfortunately, though I "rang" him at least 4 times during the FCUG meeting, he did not "pick up". I later found out that he had forgotten to "show up" for our FCUG meeting.

We talked so much during our lunch that soon it was time for Brad, Caitlin, and William to leave... and we hadn't even gotten to the hardware presentations! Before Brad left, I tried to convince him to do a CommVEx video presentation on his Micro-KIM board. Before Caitlin and William left, I filmed them doing the Commodore "salute" which I incorporated into version 3 of the SX-64 commercial. To see the commercial, go to http://blip.tv/dashboard/episode/6559074 or http://www.youtube.com/watch?v=3ZIbNcDxeCE.

Finally, we got to the presentations. Though I had thought I brought everything, I realized that I had forgotten some of the C64 programs that I was going to show off with the SuperCPU. Nonetheless, we tried out 3D Pool with the SuperCPU, discovering that we needed more instructions on how to move the pool cue and hit the balls. However, moving around the pool table was very fluid and fast with the SuperCPU.

More enjoyable was the Asteroids emulator used with the SuperCPU. The Asteroids emulator was an exact reproduction of the arcade Asteroids game. For fun, we switched back and forth from 1 MHz... well, not so much fun... to 20 MHz. SuperCPU speed... ah, much better. We discovered that the original arcade game used only about 8K of code, small enough to be modified

to work within the C64's memory.

Giving video digitizers another chance to work this month, I hooked up the Video Byte II including Super Explode V5.0 to the C64 and my camcorder. Unfortunately, repeating the bad luck of last month's meeting, the digitizer did nothing. Could it be that the user port in the C64C was dirty or was different enough in design to affect the Video Byte? Or perhaps the digitizer did not like the composite signal coming out of my hi-def camcorder?

Moving forward, we ended the meeting by playing with the newly-released VIC-20 games, VICroLeague Wrestling and VICroLeague Wrestling 2. The digitized photos of wrestlers that showed up during game play was good, but the dots that represented the wrestlers during the actual wrestling were harder to understand. After reporting my findings to the creator of the games, he gave full instructions on how to control those dots. Perhaps at the next meeting, we should give those games another go now that we have those instructions.

We actually didn't devote any time to Amiga 1200 tower, though it was powered up and running. It was nearly 3 p.m., and I decided that was enough for the day.

Everybody helped me pack up the car, Brad and Vincent left, and Roger and I hung around another hour just to decompress.

APRIL 2013

Although he is sometimes late because he thinks the meeting starts at 11:30, Dick arrived 15 minutes early this month, and had the computer set up before anyone else arrived.

We had full attendance of our local regulars - Robert Bernardo, Brad Strait, Roger Van Pelt, Louis and Vincent Mazzei, and Dick Estel. Local actually covers a wide area of the central San Joaquin Valley. Roger is the only one with a Fresno address. Robert lives in Visalia and the Mazzei's in Farmersville, both in neighboring Tulare County, while Dick and Brad are residents of Clovis, Fresno's closest neighbor.

With everyone present, we made sure our hair was combed, put on our Commodore shirts and buttons, and took a new group picture for the front page of the FCUG web site. See it at http://www.dickestel.com/images/fcug305.jpg.
Last month Louis reported that he had ordered a batch of heat sinks which can be placed on chips. He brought them and gave them to whoever needed some.

The club discussed who should be honored on the commemorative bottles of wine to be given as door prizes at CommVEx, and selected Jim Drew, who had a major presence at the event last year. Jim has promised to bring some new and interesting goodies again this year.

Vincent told us that he is interested in learning programming, and is looking for help. Several suggestions were provided, particularly on books to use as a starting point. We also suggested studying the type-in programs that appeared in Commodore magazines to see how certain tasks are handled.

Louis told of problems with his internet provider. They made changes without notice, causing his connection to nearly come to a halt. Eventually he installed a new router, which automatically recommended the correct settings. Still unanswered is the question of why Verizon didn't let their customers know about the change.

Around noon we began a video chat with Charles Gutman, our member in Fontana, CA. He displayed a board he is working on, and talked about some items he may bring to CommVEx. He remained on line as an observer for most of the meeting.

At last month's meeting Robert had filmed Brad's two older children giving the "Commodore Salute." He added this footage to the SX-64 commercial that he first created after the January meeting, and showed it at the meeting. Later, Brad's wife Jennifer, son William, and baby Charlotte stopped by, and they got to see the commercial also. It's on line at https://blip.tv/episode/6559074. There will be a version 3.1 to correct a spelling error in the credits.

Robert reported on a visit to Thomas Langham, an amateur astronomer who lives in San Bruno, CA. Thomas previously used a VIC-20 and then a C64 to record data from observations through his telescope. Robert showed photos and video of his equipment, which included a rotating observatory dome and a high-end telescope, as well as many accessories. Robert passed around photocopies of the equipment used and some of his printouts, including data that showed when one of Jupiter's moons went through an eclipse caused by another moon.

We set up the VIC that Thomas had donated, but it would not work; fortunately, Vincent, as Poobah of the VIC-20, had brought his.

We also had a C128 donated by former member Del Contreras which worked fine, and was found to have the Servant chip installed. Del had also given us a box of miscellaneous computer items. Like kids on Christmas morning, we dug through the box, with most of us finding a "present" to take home.

In the equipment part of the meeting, we looked at the VIC-20 hardware, a small Cardco Cardboard/3 Expansion Interface and the bigger HesWare HesCard-20 5-Port Cartridge Expander for the VIC-20. Dick took photos of the inside of a MSD 24K RAM Expansion Memory.

In the software part of our meeting, we looked at a few of the early, simple VIC-20 programs from the Jeff Daniels' disk, the Denial Archive, and we glanced at the VIC-20 folders on the Toronto PET User Group Library CD. The folders were not labeled well, and so, at a later meeting, more investigation will have to be done on them.

Finally, to wrap up the meeting, Robert brought out the Commodore 64's distant cousin, a newly-acquired Atari 800XL system, for all to see and use. Louis, an expert in Atari 8-bit and 16-bit computers, had to instruct Robert on how to use the system.

A HISTORY OF THE AMIGA

PART ONE - GENESIS

When it first arrived, the Amiga was a dream machine...

-by Jeremy Reimer

Prologue: the last day
April 24, 1994

The flag was flying at half-mast when Dave Haynie drove up to the headquarters of Commodore International for what would be the last time.

Dave had worked for Commodore at its West Chester, Pennsylvania, headquarters for eleven years as a hardware engineer. His job was to work on advanced products, like the revolutionary AAA chipset that would have again made the Amiga computer the fastest and most powerful multimedia machine available. But AAA, like most of the projects underway at Commodore, had been canceled in a series of cost-cutting measures, the most recent of which had reduced the staff of over one thousand people at the factory to less than thirty.

"Bringing your camera on the last day, eh Dave?" the receptionist asked in a resigned voice.

"Yeah, well, they can't yell at me for spreading secrets any more, can they?" he replied. Dave took his camera on a tour of the factory, his low voice echoing through the empty hallways. "I just thought about it this morning," he said, referring to his idea to film the last moments of the company for which he had given so much of his life. "I didn't plan this."

The air conditioners droned loudly as he passed warehouse after warehouse. Two years ago these giant rooms had been filled with products. Commodore had sold $1 billion worth of computers and computer accessories that year. Today, the warehouses stood completely empty.

Dave walked upstairs and continued the tour. "This is where the chip guys worked," he said as the camera panned over empty desks. The "chip guys" were engineers designing VLSI (Very Large Scale Integration) custom microchips on advanced CAD workstations. These chips had always formed the heart of the Amiga computer. Five years later, most personal computers would include custom chips to speed up the delivery of graphics, sound, and video, but the Amiga had done so since its introduction in 1985.

"Wow, one guy is still here!" Dave said, zooming in on the workstation of Brian Rosier. "And he's actually working!" The workstation screen showed a complex line graph, the result of a simulation of a new chip design. "This is for my next job," the engineer said, smiling. Most of the technical people would not be out of work for very long.

Dave passed his own office. The camera zoomed up to an empty bottle of ale displayed proudly on a shelf. "This was for the birth of my son," he said, then panned around the rest of the desk, filled with papers and technical manuals. "I felt I had to do something," he said before he left.

"This was my workbench," he explained as the tour continued. On the desk were various Amiga computers, a Macintosh IIsi, tons of test equipment, and a large prototype circuit board.

"And this... this is Triple-A," he said, with a mixture of pride and bitterness. "I read on the 'Net that AAA didn't exist. Well, here it is!" He pointed out the memory slots, the expansion bus, and various other features.

Many of the Commodore engineers were on the Internet, back before the World Wide Web existed, when the 'Net was just text and was the exclusive domain of academics, researchers, and a few dedicated hobbyists. AAA had been the subject of hundreds of rumors, from its announcement to a series of delays and its final cancellation. While there were those who believed it had never existed, there were also others who went the other way, who endowed AAA with mythical properties, perpetually waiting in the wings for its revival and subsequent domination of the computer industry. These people would keep the faith for years, in the subsequent trying times for the Amiga after the death of its parent company. They refused to let go of the dream.

Others were more pragmatic. "Here's Dr. Mo!" Dave exclaimed, finding Greg Berlin, manager of high-end systems at Commodore International, crouched down on the floor, pulling chips out of a personal computer and placing them, one at a time, on top of the large tower case.

"Dr. Mo in pilfer mode," he said, looking up from his task. His face registered laughter, guilt, sadness, and resignation all at the same time. He sighed. "Well, I've been waiting all these years, I finally broke down and I'm doing it. I finally decided, I've been here long enough that I deserved something." He looked at the tiny, pathetic little pile, as if the supreme inequity of this trade was suddenly hitting him. "So I'm taking a couple of RAM chips," he said.

The Amiga computer was a dream given form: an inexpensive, fast, flexible multimedia computer that could do virtually anything. It handled graphics, sound, and video as easily as other computers of its time manipulated plain text. It was easily ten years ahead of its time. It was everything its designers imagined it could be, except for one crucial problem: the world was essentially unaware of its existence.

With personal computers now playing such a prominent role in modern society, it's surprising to discover that a machine with most of the features of modern PCs actually first came to light back in 1985. Almost without exception, the people who bought and used Amigas became diehard fans. Many of these people would later look back fondly on their Amiga days and lament the loss of the platform. Some would even state categorically that despite all the speed and power of modern PCs, the new machines have yet to capture the fun and the spirit of their Amiga predecessors. A few still use their Amigas, long after the

equivalent mainstream personal computers of the same vintage have been relegated to the recycling bin. Amiga users, far more than any other group, were and are extremely passionate about their platform.

So if the Amiga was so great, why did so few people hear about it? The world has plenty of books about the IBM PC and its numerous clones, and even a large library about Apple Computer and the Macintosh platform. There are also many books and documentaries about the early days of the personal computing industry. A few well-known examples are the excellent book Accidental Empires (which became a PBS documentary called Triumph of the Nerds) and the seminal work Fire in the Valley (which became a TV movie on HBO entitled Pirates of Silicon Valley.)

These works tell an exciting tale about the early days of personal computing, and show us characters such as Bill Gates and Steve Jobs battling each other while they were still struggling to establish their new industry and be taken seriously by the rest of the world. They do a great job telling the story of Microsoft, IBM, and Apple, and other companies that did not survive as they did. But they mention Commodore and the Amiga rarely and in passing, if at all. Why?

When I first went looking for the corresponding story of the Amiga computer, I came up empty-handed. An exhaustive search for Amiga books came up with only a handful of old technical manuals, software how-to guides, and programming references. I couldn't believe it. Was the story so uninteresting? Was the Amiga really just a footnote in computing history, contributing nothing new and different from the other platforms?

As I began researching, I discovered the answer, and it surprised me even more than the existence of the computer itself. The story of Commodore and the Amiga was, by far, even more interesting than that of Apple or Microsoft. It is a tale of vision, of technical brilliance, dedication, and camaraderie. It is also a tale of deceit, of treachery, and of betrayal. It is a tale that has largely remained untold.

This series of articles attempts to explain what the Amiga was, what it meant to its designers and users, and why, despite its relative obscurity and early demise, it mattered so much to the computer industry. It follows some of the people whose lives were changed by their contact with the Amiga and shows what they are doing today. Finally, it looks at the small but dedicated group of people who have done what many thought was impossible and developed a new Amiga computer and operating system, ten years after the bankruptcy of Commodore. Long after most people had given up the Amiga for dead, these people have given their time, expertise and money in pursuit of this goal.

To many people, these efforts seem futile, even foolish. But to those who understand, who were there and lived through the Amiga at the height of its powers, they do not seem foolish at all.

But the story is about something else as well. More than a tale about a computer maker, this is the story about the age-old battle between mediocrity and excellence, the struggle between merely existing and trying to go beyond

expectations. At many points in the story, the struggle is manifested by two sides: the hard-working, idealistic engineers driven to the bursting point and beyond to create something new and wonderful, and the incompetent and often avaricious managers and executives who end up destroying that dream. But the story goes beyond that. At its core, it is about people, not just the designers and programmers, but the users and enthusiasts, everyone whose lives were touched by the Amiga. And it is about me, because I count myself among those people, despite being over a decade too late to the party.

All these people have one thing in common. They understand the power of the dream.

There were many people who helped to create the Amiga, but the dream itself was the creation of one man, known as the father of the Amiga. His name was Jay Miner.

Jay was born in Prescott, Arizona on May 31, 1932. A child of the Depression, he was interested in electronics from an early age. He started university at San Diego State. By this time, the Korean War was in full swing, and Jay opted to join the Coast Guard. His education and interest worked in his favor, landing him in electronics school in Groton, Connecticut. It was here that he met his future wife, Caroline Poplawski. They were married in a quiet ceremony in 1952.

Jay's interest in electronics continued to grow, and he brought his new bride with him to California where he enrolled at the University of California-Berkeley. He completed his degree in electrical engineering in 1958. Berkeley would later become a hotbed of computer science, contributing, among other things, the TCP/IP communications protocol that would later become the standard for the entire Internet.

For the next ten years, Jay moved around from company to company, many of them startups. His desire to be involved at a fundamental level in the design process was far greater than his need for steady employment. At startups, all the traditional rules about management and procedure are typically thrown out the window. People don't worry about sticking to their job descriptions; employees on every level from intern to CEO simply do whatever work needs to be done. This type of environment suited Jay well.

Jay then landed a position at a hot young company called Atari, which had gone from nothing to worldwide success overnight with the invention of the first computerized arcade games, including the blockbuster PONG. Atari was by no means a typical company. Its founder, Nolan Bushnell, was a child of the 1960s and believed that corporations could be more than emotionless profit machines: they should be like families, helping each other to prosper in more ways than just financially. There were few rules at Atari, and it didn't matter how weird a person you were if you could do the work. (One such Atari hire was Steve Jobs, who later moved on to bigger and better things.)

The man at Atari who hired Jay Miner in the mid-1970s was Harold Lee, who became a lifelong colleague and friend. Harold once said of Jay that "he was always designing. He never stopped

designing." That kind of attitude could get you far at a company like Atari. Jay wound up being the lead chip designer for a revolutionary product that would create a multibillion dollar industry: the Atari 2600, otherwise known as the Video Computer System or VCS.

The generation of gamers who have been raised on Sony and Nintendo may not remember Atari, which today exists only as a logo and a brand used by a video game software company, but Atari essentially created the home video game industry as it stands today. The VCS was the first massively popular game console, and despite having incredibly primitive hardware inside, it managed to have a commercial life span far greater than any of its competitors. Much of this longevity was due to Jay Miner's brilliant design, which allowed third-party programmers to coax the underpowered machine to achieve things never dreamed of by its creators.

An example of this was Atari's Chess game. The original packaging for the VCS showed a screenshot of the machine playing chess, although its designers knew that there was no way it was powerful enough to do so. However, when someone sued Atari for misleading advertising, the programmers at Atari realized they had better try and program such a game. Clever programming made the impossible possible, something that would be seen many times on the Amiga later on in our story.

Having achieved such great success with the VCS game console, Jay's next assignment was designing Atari's first personal computer system. In 1978, personal computers had barely been invented, and the few companies that had developed them were often small, quirky organizations, barely moved out of their founder's garages. Apple (started by the aforementioned Steve Jobs and Steve Wozniak) was one of the major players, as was Tandy Radio Shack and even Commodore (we will get to the full Commodore story in a future installment).

The computer Jay designed was released in 1979 as the Atari 400. A more powerful version, the 800, was also released with a better keyboard. At the time, most of its competitors were awkward, clunky machines, often large, heavy and temperamental, and if they created any graphics at all they were either in monochrome or, in the case of the Apple II, limited to a palette of only eight colors. The Atari 400/800 machines had a maximum of 40 simultaneous colors, and featured custom chips to accelerate sound and graphics to the point that accurate conversions of popular arcade games became possible. Compared to an Apple II or a TRS-80, the Atari machine seemed to come from the future. The same thing would happen with the Amiga a few years later.

However, Atari management undermined the success of the 400/800 in several ways. Firstly, to avoid competition with the VCS, they downplayed the importance or even the existence of games for the platform, insisting that it be considered a "serious" machine. Ironically, when the company was struggling to produce a successor to the 2600, they ended up simply putting an Atari 400 in a smaller, keyboard-less case. Even worse, Atari was reticent about giving out information about how the hardware worked, thinking that such

data was to be kept a trade secret, known only to internal Atari programmers. Some individuals, such as the superstar game programmer John Harris, considered this a challenge, and they managed to unlock most of the Atari's secrets by a process similar to reverse engineering. But the lack of strong third-party development for the computer doomed it to an also-ran status in the nascent industry.

After the 400 and 800 had shipped, Atari management wanted Jay to continue developing new computers. However, they insisted that he work with the same central processing unit, or CPU, that had powered the VCS and the 400/800 series. That chip, the 6502, was at the heart of many of the computers of the day. But Jay wanted to use a brand new chip that had come out of Motorola's labs, called the 68000.

The 68000 was an engineer's dream: fast, years ahead of its time, and easy to program. But it was also expensive and required more memory chips to operate, and Atari management didn't think that expensive computers constituted a viable market. Anyone who had studied the history of electronics knew that in this industry, what was expensive now would gradually become cheaper over time, and Jay pleaded with his bosses to reconsider. They steadfastly refused.

Atari at this time was changing, and not necessarily for the better. The company's rapid growth had resulted in a cash flow crunch, and in response Nolan Bushnell had sold the company to Warner Communications in 1978. The early spirit of family and cooperation was rapidly vanishing. The new CEO, Ray Kassar, had come from a background in clothing manufacturing and had little knowledge of the electronics industry. He managed to alienate all of Atari's VCS programmers, refusing their demands for royalty payments on the games they designed (which were at the time selling in incredible numbers) and even referred to them at one point as "prima donna towel designers." His attitude led to a large number of Atari programmers quitting the company and forming their own startups, such as the very successful Activision, started by Larry Kaplan. Larry had been Atari's very first VCS programmer.

Jay had incredible visions of the kind of computer he could create around the 68000 chip, but Atari management simply wasn't interested, so finally he gave up in disgust and left the company in early 1982. He joined Zimast, a small electronics company that made chips for pacemakers. It seemed like his dream was dead.

However, as would happen many times in the short history of this industry, forces would align to make a previously impossible dream possible. While technology was advancing rapidly, the number of people who really understood the technology remained small. These people would not be limited by the short-sighted management of large companies. They would find each other, and together, they would find a way.

It was this feeling that caused Larry Kaplan to pick up the phone and make the fateful call to Jay Miner in the middle of 1982.

Larry was enjoying the fruits of his success with Activision, yet still

felt the limitations of being primarily a developer for the Atari VCS. Video games were a hot property at this time, and there was no shortage of investment money that people were willing to put into new gaming startups. A consortium out of Texas, which included an oil baron (who had also made money from sales of pacemaker chips, which was how Jay knew him) and three dentists, had approached Larry about investing seven million dollars in a new video game company.

Larry immediately phoned Jay at Zimast to ask if he would like to be involved in this new venture. The idea was to spread the development around: Larry and Activision would develop the games, Jay and Zimast would design and build the new hardware to run them, and everybody would make money. They had to quickly decide on a name for the new venture, and "Hi-Toro" was chosen because it sounded both high-tech and Texan. The company needed a management person to oversee all this development, so David Morse was recruited from his position of vice president of marketing at Tonka Toys. A small office was located in Santa Clara, California, and the three co-founders got down to the business of designing the ultimate games machine.

It was around this time that Larry Kaplan began to get cold feet about the whole idea. Jay speculated that perhaps things weren't moving fast enough for him, or maybe he was worried that the games industry was becoming too crowded, but he suddenly decided to quit the company in late 1982. It turned out that Kaplan had been given a very generous offer from Nolan Bushnell to come back to Atari, an offer that later turned out to be less than expected.

In any case, Kaplan's departure presented the fledgling venture with a problem: they had no chief engineer. While Larry was a software developer and not a true hardware engineer, he had still been in charge of engineering management for the company. The next logical choice for this position was Jay Miner.

Jay knew this was his chance. He agreed to take over the position of chief of engineering at Hi-Toro under two conditions: He had to be able to make the new video game machine use the 68000 chip, and also make it work as a computer.

Tune in to next newsletter for Part 2: The birth of Amiga

MEMORY LANE

-by Dick Estel

-INTRODUCTION-

This is number two of a limited series of articles saluting some of our past members, people who have made a significant contribution to the club. Our more recent members did not have the pleasure of knowing these men and women, many of whom have passed on. However, they made a lasting impression on the club and the author.

Questions and comments to our web address, info@dickestel.com, are welcome.

RALPH & REBA PARROTT

Ralph Parrott was a member of the club for some time before I joined in 1988, and was a past president. Over the next 14 years he became a good friend.

Ralph started out with a C128, and became quite proficient at creating graphics and animation (using sprites). He was also one of two or three members who really understood the ins and outs of GEOS, and spent many hours giving classes, demonstrations and one-on-one assistance to members.

He was born in Oklahoma, where he graduated from high school. A talented football player, he was offered a college scholarship, but the World War II draft intervened. He did play some semi-pro football around this time.

Ralph served in Europe including the invasion at Normandy, and returned home safely. He married Reba, another Oklahoma native. Her parents were migrant workers, following the crops to Arizona, through California, and up to Oregon and Washington.

After they were married, the Parrotts came to California, where Ralph worked as a printer at a small newspaper in Tulare. They briefly returned to Oklahoma, but they had become Californians at heart, and soon returned.

Ralph worked for the Tulare Advance-Register, the Visalia Times-Delta, and then for the Fresno Bee for 30 years. Reba worked at various jobs, the last 15 years at the restaurant at California State University Fresno.

Ralph passed on in 2002, leaving a major void in our club. I visited Reba recently, and she is still doing well, and sent her best wishes to the club.