ColecoNation

THE BLUE SCREEN
Drool-Proofing the CV
by Nathan Kozlowski

Anyone with even the slightest grasp on the concept of time knows that it's been a while since a new ColecoNation has been released. I never intended to let it get this drawn out, but a number of major events have recently occurred in my life that continuely make it a chore to find free time for this webzine. The biggest one being the addition of a baby girl to the household. I plan to keep ColecoNation around in some format, so please bear with me while I figure out the hows.

I don't have a lot to say this time around, but I've notice something these last few months that I think is pretty peculiar. While I haven't had much time to play video games recently, I don't feel like I've missed out on much, because I've found that taking care of a baby is very similar to playing a classic video game. I've got three examples to support my outlandish statement.

First, most classic video games are not too complicated. There's only so many things going on at one time that you have to deal with. With Donkey Kong, all you have to worry about is avoiding fireballs and climbing up ladders. Babies are the same way. All babies really do is eat, sleep, and dirty diapers. Regardless of this though, every game of Donkey Kong proves a challenge no matter how much you play and every day you take care of a baby proves to be difficult in some new way.

Second, just when you think you've got your classic game console up in running, only a black screen appears when you turn it on. Or, the graphics are all garbled. Babies are the same way. Just when you think you've got them on a sleep cycle, they decide to be wide awake at 3 in the morning. Both can drive a sane person mad.

Lastly, and most importantly, no matter how good you get at a classic video game, you can never win. The game repeats and repeats and never ends. With a baby, your job also never ends. You finally get them to sleep through the night, but then you've got then to eat solids, and teach them how to tie their shoes, and pay for their schooling... Those with kids know what I'm talking about and those without; well I'm sure someone is bound to make a classic video game about raising kids one of these days. It pratically lends itself to this format.

THIS JUST IN...
Send your news items to:
ColecoNation@yahoo.com

Squares! www.atariage.com
Harvey deKleine's first ColecoVision on a cartridge, Squares!, is a doozy and can be purchased directly from him. Check out the AtariAge forum for ordering details. For a reasonable fee, you'll get a custom cartridge and instruction sheet.

GameConsoles Goodies www.gameconsoles.com
Search for the Stolen Crown Jewels 2 and Monster Masher are now availabe from GameConsoles. Both games are by Philipp Klaus Krause and can be ordered directly from the site.

Good Deal Games Goings-On www.gooddealgames.com
Search for the Stolen Crown Jewels 2 and Monster Masher are now availabe from Good Deal Games. Both games are by Philipp Klaus Krause and can be ordered directly from the site.

Opcode Games Odds and Ends www.opcodegames.com
The fine people at Opcode are working diligently to get more ColecoVision games out the door. Soon the fans will be rewarded for their patience. Pac-Man Collection, Road Fighter, and Konami Sports Collection 1 (which includes: Track & Field, Track & Field II, Hyper Sports 1, Hyper Sports 2, Billiards, Ping-Pong and Tennis) are all close to being finished and all could very well be released by the end of the year. Stay tuned!

Opcode Games is recalling all Magical Tree cartridge units manufactured due to a malfunction (herein termed bug) recently found in the game. The bug is causing the game to garble graphics and truncate messages which should be presented to the player during the “Game Over” screen. The bug doesn’t affect actual game play. Head over to Opcode's website for more details about how you can get yours fixed.
[02]

0 - **1** - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
eleven | 07.07

ColecoNation

COLECO CHAT

Dan'l Thompson

by Nathan Kozlowski

Dan'l Thompson worked on various projects during his years at Coleco as a programmer, but most of his time went into developing the ADAM. He took some time to talk about his days in Hartford, working on the infamous computer.

Nathan Kozlowski_ Could you talk some about your beginnings at Coleco?

Dan'l Thompson_ I moved to Hartford from Chicago in 1981 a few months after getting married. I was working for Honeywell developing real-time control systems and spending all my free time coding games and little 3D graphics programs not to mention dropping a ton of quarters at the arcade. I had done a lot of real-time work at Northwestern University so I was pretty good at algorithms, design, and squeezing performance out of chipsets. In that Honeywell job I was traveling quite a bit which I think ticked off my new wife, so I was ready for a change. So one day in early 1983 I saw an ad in the Hartford Courant looking for video game developers. I interviewed with David Hwang, Dave Stern and Rob Jepson who were the managers and supervisors of the software side of ARD at the time. Stern took me out to lunch and we hit it off right away. They made me an offer and I never looked back.

I was a senior software engineer. My first day there was the day that Zack Smith left, I think to work at Milton Bradley. It was pretty emotional, because he was really well liked, and I think he was maybe the first of the ColecoVision designers to leave. Zack had done a lot of the initial development work on some games and on the ColecoVision operating system, which was not much more than a collection of precoded macros to do stuff like play sounds and move sprites. I introduced myself to him on his way out the door, started a conversation, and asked him why he was leaving. What he said was wise and it stuck with me. He said, “First you learn, then you earn.” People who worked at Coleco came into high demand after a short time there. I think he was just the first to realize it and take advantage of it.

Jepson walked me around and I met Lawrence Schick and Robert Bessel. We became immediate friends and I think we kind of kept each other sane over the next couple years. Robert and I each lived about a mile away from Paul Jaquays, so we all car pooled together. I spent a lot of time with Lawrence as well. Then they showed me the game room, a closet with about a dozen or so arcade games that the designers used to get the gameplay right. That pretty much clinched it for me and I knew I would be in heaven here.

NK_ What were some of the first projects that you worked on?

DT_ Well, on my first day they didn’t know quite what to do with me so they gave me to the art department and had me pixelating Mario, basically turning the graphics into byte codes. They were doing it all by hand then, although later on one of the developers, Dave Schultz, came up with a way to edit and test graphics right on a ColecoVision which saved a lot of time. So working on Mario lasted about a week and then I just jumped in and started debugging games and tweaking them, which was something I was really good at. I could just kind of visualize code back then. There were a few minor projects, but most of the games at that point were being shipped out to 3rd parties for development and then brought in for final tweaks and packaging. The amount of refinement depended on who did the work, how well it play tested, and if there were any obvious bugs. Often the sounds were tweaked or even replaced. It varied from a few days work to a few weeks.

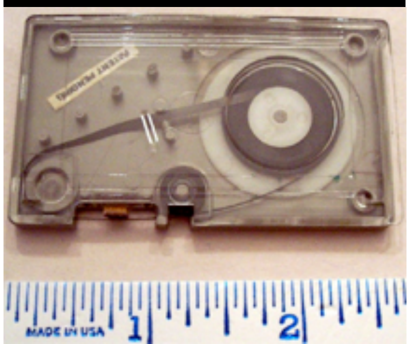
After just a few months, they started talking about designing a tape system. So I’d say that was my first major project. I designed a virtual tape system, which is to say a piece of software or API that developers could use to write tape based games. I wrote a little emulator so we could test it out, even though we didn’t have a physical tape drive at the time. It was pretty cool. The whole point of a tape based game is twofold. The media might be cheaper than ROMs and you might be able to hold more information on a tape. Tape based games are also different than ROM based games, because you have to think about how to preload at least parts of the next scene before they are needed so there are no halts in game play and so that it doesn’t take forever to load the game in the first place. It was quite a challenge.

[03]

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

COLECO CHAT

Dan'l Thompson [continued...]



Entrepo Wafer Tape

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

eleven | 07.07

ColecoNation

The first implementation of the tape system was the Entrepo Wafer tape. The Entrepo was a tape loop in a small package. The tape itself was maybe 1/16 inch wide. The copy that I kept is probably of Donkey Kong, but there is no way to know for sure and no way to read it that I'm aware of. If it is a copy of Donkey Kong, then it is undoubtedly stretched or damaged. They didn't tend to last very long in the lab, a few days tops. That's probably why that product never saw the light of day. The tape emulator and API system mapped directly onto this hardware, so that when we had an actual tape drive and some tapes to play with, it took a matter of hours to get a game to play on the tape. We ported Donkey Kong and Smurf to this tape system, but we quickly found that the tapes were subject to stretching, and would lose their programming in the course of a few game plays. And since this was a tape loop, it could only go in one direction, so if it misread a segment it could not rewind to try to reread it. You would just have to loop forward all the way around the tape to get back to the bad segment. While that might sound like a bad thing, it actually led us to rethink tape systems and eventually to go with something more robust for the ADAM.

NK_ Was there a specific application in mind to be used with the Entrepo?
DT_ There was a non-working mockup of a wafer tape reader and it even had a name, but I can't recall what it was. It was going to plug into the game port, but maybe two prototypes were built and then scrapped.

NK_ Over the years, how did your job position and responsibilities change?
DT_ My responsibilities grew from developing the tape systems to working on what I considered the really interesting parts of the ADAM operation system, which were interrupt handling, memory management, bank switching, and error correcting codes. There were so many things I worked on that probably could have been patented. At the time I think we saw ourselves as competing against the likes of MS-DOS and CP/M. I worked often with 3rd party developers to help them get their games running on the ADAM. We had a group from Japan come in. They had a game and it would just stop working. They had their listings printed out on greenbar paper and I would just read through the listings and point to things and say where they were missing a pop instruction. They wondered how it was possible for someone who had never seen the code to find the mistakes. Even back then it was about pair programming, having two sets of eyes looking at the code and looking for the following patterns, although nobody was using these terms in the early 1980s.

I did some work on the word processor, especially trying to push for an architecture that might allow us to take parts of it and make it reusable for other applications. But there was such pressure to show a working word processor that it never really had much of an architecture, let alone any reusable parts. Software reusability was an issue even back then. At one point they sent David Stern to visit with MultiMate to see if their word processor application could be ported to the ADAM. Obviously it didn't happen, but there are other MultiMate links that I'll talk about later on. Finally, I led the team that built the database applications, the recipe filer, and a few others. That we had designed a relational database and a working, albeit scaled down, version of SQL, was pretty wild. Imagine a relational database working in a serial media like tape. Kind of weird, but it worked.

NK_ How much of the ADAM was developed before you came to Coleco?
DT_ I really don't think any of the ADAM was developed before I got there. Everything was pretty secretive, of course. I'm sure there was the idea of the ADAM, but no real action being taken yet. If anything, it was still in the early conceptual phase. I think Eric Bromley really wanted it, but it was probably beyond the ability of the original electronics engineers to design a real computer. The staff he had in place had no problem with small digital electronics. However, a computer with multiple CPUs and a bus architecture was something that required outside resources and eventually a much larger and different electrical engineering department. I first caught wind of ADAM when a couple of the writers started spending time sitting with Bromley discussing how the word processor would function. As far as I knew it started with this idea for a word processor that would also play ColecoVision cartridge games. [04]

ColecoNation

COLECO CHAT

Dan'l Thompson [continued...]

NK_ What was your opinion of Coleco moving into the computer market?
DT_ Well, had we pulled it off, it would have been completely brilliant and we would have displaced Microsoft as the market leader. Bromley never thought small. At the time, the desktop computer market was still very fragmented. There were PCs, KayPros, Apple IIs, you name it. Even Timex had a little home computer at the time. There were lots of choices for operating systems. Nobody had a lock on the business. It was kind of the Wild West, so there was certainly room in the market for something with a successful vision. ADAM was the only machine that packaged the word processor, data storage, and a printer together so that it would function right out of the box.

NK_ What was it like for you working at Coleco?
DT_ All in all, working at Coleco was pretty insane. My first few months there were actually fairly normal, but even then there was a sense of paranoia. You were not supposed to answer the phone and say who you were. I would habitually answer the phone, “Hello, Dan Thompson here”, and get yelled at for it. They didn’t want outsiders to know who was working there. A few months into my stint they found out that there was another Dan Thompson in the industry. It’s not like I have a common name or anything. Anyway, I think he was working for Broderbund, but they actually called me in to make sure that I wasn’t him. Very odd and secretive stuff. In fact, we rarely knew what other parts of the organization were working on.

Another little paranoia story had to do with stress testing the Adam printer. They wanted it to run in a loop, 24-7. One Sunday morning Jepson arrived first and had no sooner stepped into the VAX room, where the thing was set up to run through its paces, when it caught on fire. Some little plastic tab had broken off, jammed one of the stepper motors, and the thing overheated. The halon system didn’t trigger, so he grabbed an extinguisher and put it out. The printer and part of the table burned and everything reeked of plastic smoke for a few days. The crazy part is that the powers-that-be refused to let us call the fire department, probably because of the bad press that would have followed.

There was also a lot of grueling hours. As we got into developing tape systems, the pressure: of making them work in time for the Consumer Electronics Show, the expected success of what we were to show, the run up of the stock price, and then the insane pressure to actually deliver what we had shown, all of it took its toll. I started in the spring of 1983, by the fall we were starting to put in 60 hour weeks. In the run up to the CES, we were often there 7 days a week. At one point one of the engineers went home to get some sleep, this was just a few days before the CES, and at two in the morning we had finally gotten around to testing his part and it didn’t work. So we called him up, but he had taken his phone off the hook. We felt that we really needed him to come in and show us why it wasn’t working, so someone actually called the cops and had them knock on his door and make him answer his phone.

Then after the CES there was this lull. The stock price had gone from maybe 6 or 7 when I joined, up to 20 and then up to 65 or 70 over the course of the year. So I think all the bosses were out slapping themselves on the back and celebrating all this money that they had just made. After they woke up a few weeks later and realized we had to deliver for Christmas, the pressure was non-stop. We were all there easily 80 or 90 hours a week, maybe more, from April to Labor Day. Some managers were famous for walking into the development area at 3:00PM on a Friday and saying nobody is going home until this works. Labor Day weekend was like that, because the Wall Street Journal and the New York Times and anybody else who was important in the financial press was coming in the following week to see a real ADAM computer work.

At the peak of the craziness one of the project managers got punched in the face during a meeting. There was blood, and while it kind of surprised us, it didn’t shock us. There was a lot of craziness. A lot of it was not pretty. At some point during the summer it just became an issue of managing your own burn out, but when George Kiss came in, followed by Sam Overton, things definitely improved. [05]

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

ColecoNation

COLECO CHAT

Dan'l Thompson [continued...]

NK_ How did they improve things?
DT_ Bromley was very hands-on with the developers and he could be kind of brutal at times. He just wanted things done according to his vision. We were basically a bunch of kids (I don't think any of us was over 30) and we were also all very creative people, so there was a lot of conflict. Kiss and Overton formed a buffer between us and Bromley and made sure that both sides stuck to their commitments. By December, most of the pressure was off of us and onto the manufacturing guys.

NK_ Who were some of the people that you regularly worked with at Coleco?
DT_ Paul Jaquays, Lawrence Schick, Dennis Sustare, Joe Angiolillo, Arnold Hendrick, those were the main game designers I worked with. Robert Bessel, Chopeta Lyons, and Mary Higgins (aka Maria Higgini) were the main writers I worked with. Tom Fulton was one of the project managers. All the ARD guys, especially on the software side, Hwang, Stern, Jepson, Schultz, but also a guy named BZ, Leo Gray, Au Nguyen, and Jim Martinez. Later on George Kiss came in as a manager to replace Hwang who went on to form the QA group and there was Sam Overton who came from Activision.

There was the music team. They were some really interesting people. Ken Legace was the original sound developer. Leo Olbrych and Rolland Rizzo were both classically trained musicians, both worked in the Hartford Symphony and had played on Broadway. The last member of the music team was the daughter of Lalo Shifrin, the guy who wrote the mission impossible theme. Her name was Laurie. She was a world class violinist. I think this team in particular goes to show the quality of people they were looking for.

In the art department, I certainly worked with different members of Dave Johnson's staff depending on what we were working on. The real day-to-day contact for me was with the designers, writers and the music staff. The hardware development arm of ARD, I felt, was really removed from most of the software group; when I first got there Rob Schenk was still running it. It was a small group, nimble, and I think like most hardware organizations they never quite understood why software took as long as it did. After we moved to the Quaker Lane facility, Paul Ahrens took over from Schenk.

Bromley was always looking for bright people. His son was going to MIT at the time and so there some connection there. There were always brilliant guys coming in. Guys like Steve Perlman, who later went on to invent WebTV. He developed a modem for us. I think it took him a week or two, pure genius. Guys like Howard Eglowstein and Mark Callahan who came from the MIT media lab and were doing research on 3D graphics generation. Howard later went on to write extensively for Byte magazine. I think there was even some work going on developing the LOGO programming language, so they were probably talking to people like Noam Chomsky.

One of the last people I had the pleasure of working with there was Toby Corey. He was just a kid, right out of school, working in the testing department for David Hwang. A couple years later, by complete chance, Toby and I became neighbors and both had our first kids at around this same time. He was just a great guy, very personable and energetic. So I asked him to join us at MulitMate, which had just been bought out by Ashton-Tate. From there he went on to great heights, eventually co-founding USWeb and became the poster child for the early dotCom industry, very successful in his own right.

NK_ What parts of a game's design process were you involved in?
DT_ I worked on enabling other people to be able to develop games and programs for the ADAM. A lot of API work, operating system work, and a lot of documentation.

NK_ Were you involved with the ColecoVision hardware/accessory design?
DT_ ColecoVision was completely designed by the time I got there and I worked on few accessories. There was this infernal driving game that I think everyone had to work on from time to time and there was a steering wheel accessory, but I did none of the design for the ColecoVision system or accessories. [06]

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

ColecoNation

COLECO CHAT

Dan'l Thompson [continued...]

NK_ How do you think Coleco differed in operation from the competition?
DT_ Well, we had Bromley and they didn't. I've never since met anyone like him. Bromley was completely focused on the user's experience. He made sure the games and applications packed the punch needed to put Coleco on the map.

NK_ What were some of your favorite ColecoVision games? In your opinion, which games did not turn out well?
DT_ I can't really speak to the games I guess. I never really liked the controllers, I will say that. But it is not like we had time to actually sit and play ColecoVision while we worked there, aside from Donkey Kong and Smurf. Those I liked quite a bit.

NK_ What were some of your experiences at the industry trade shows?
DT_ The 1983 CES was pretty wild. Everything kicked into gear when it came to that show. We pulled out all the stops and we tried to do some wonderful things, but a lot of it was smoke and mirrors. We showed several mockups of ADAM there. There was this large Plexiglas booth which was filled with smoke and zapped with laser beams. This was to be part of the opening ceremony to introduce the future of gaming. Well, to make it more exciting they put somewhat scantily clad women into the thing. How they breathed in there I have no idea. In fact, I think they tried to make Mary Higgins (the head tech writer) to get in the box, but she refused.

When it was obvious that the tape system was not going to work, one of the electrical engineers came up with about eight regular cassette tapes each of which had a different tone recorded on it. Then it was a simple matter to come up with a switch that would swap out different ColecoVision cartridges based on the tone on the tape. So 440 hz or A would start up the first cartridge, and so forth. This worked pretty well as a demo until somebody tried to steal the tape and he had to be confronted.

Another demo showed the computing ability of ADAM, but really there was dual floppy PC under the table and the mockup ADAM just had some flashing lights. Again, this worked fine for the majority of the audience. Once in a while you'd get somebody trying to look behind the magic curtain and we just had to watch for that.

NK_ Where you surprised by how Coleco presented their products at the show?
DT_ I was surprised at the time, but then I realized, or learned, that if you don't make a big splash nobody is going to notice you. I took that idea with me to every product introduction I ever worked on after that. Although nothing I did since then was as over the top as that show.

NK_ Why did Coleco decide to go with a tape drive for the ADAM rather than introducing a disk drive from the start?
DT_ It was purely a cost issue. They felt that they could integrate a decent enough tape drive for a lot less than a disk drive or floppy. The media cost was another part of the decision. Most likely they fell in love with tapes because of the Entrepo. That entire unit probably cost around $20 and the tapes were about 10 cents a piece. With decision making, people tend to make a decision, fall in love with it, and never move off of it.

NK_ How involved were you with the ADAM computer?
DT_ Adam consumed my life for about 18 months. From the first wafer tape systems, which never developed into anything, to working on the O/S, to becoming group lead on various titles.

NK_ Can you talk about the projects (hardware or software) at Coleco that never saw the light of day?
DT_ There was a lot of secret stuff going on. The 3D graphics engine was cool, but I'm not sure anyone knew where it was going. There was an effort to emulate an IBM PC and lots of ideas for games and titles, interactive educational things that never saw the light of day. I seem to remember some Dr. Seuss thing using artificial intelligence or fuzzy logic. [07]

ColecoNation

COLECO CHAT

Dan'l Thompson [continued...]

NK_ What were the highlights and lowlights of working at Coleco?
DT_ Number one: The people were great, obviously. Nobody would put up with that amount of hardship unless you felt that you were doing it with and for your friends. Number two: This was the opportunity to do something significant, to do something that people everywhere would recognize for a long time to come. The money was meager, but the stock price went from something like 7 to something like 65 or 70. The problem was that we peons really didn't know what was going on with the business side of things and so you never really knew where the stock was going. We had one engineering type who thought he was going to make a fortune buying stock options, only to lose everything. So obviously we underlings didn't have a clue.

The parties at George Kiss's house were wonderful, often big affairs. He was just a very outgoing and wonderful guy who knew how to have a good time. Later on we held weekly sessions at Dennis Sustare's house, where the designers would try out ideas all sorts of ideas. Some were good, some not, but they were always innovative. Obviously the lows were the often pointless long hours we had to put in, waiting for your turn to test your code, or being on hand just in case they needed you. This was pretty tough on families. More than one marriage went south. And then finally the layoffs, which were almost a relief.

NK_ What was your favorite ADAM project? What one thing did you like least?
DT_ I just loved working on ADAM, every project was pretty cool. The thing I liked least was that there was so much going on and that I could not be part of all of it.

NK_ How long did you work for Coleco?
DT_ I worked there for two years. After it was clear that ADAM computers could not be manufactured reliably and the disastrous Christmas selling season where something like 7 out of 8 ADAMs were returned as defective, the software side of things dropped into low gear. It was nowhere near as intense as before Christmas, but it was obvious that the Greenbergs had lost a ton of money and that there would be layoffs. One day we were called to a meeting across the street from the Trout Brook building over at the Elmwood Movie Theater. And there it was explained that if you were there, you still had a job. So that was the first one. I came back and my buddy Robert Bessel was packing up his stuff. I'd never been through a layoff situation before, and it was not a good thing. Happily, over in East Hartford, there was this little startup software company called MultiMate. They were going through a big expansion, and they hired a bunch of us, including Martinez, Rizzo, Olbrych and Eglowstein and maybe a couple others, almost immediately. I think that not one of the software guys stayed in the game industry. Most of us got absorbed into startups or manufacturing companies. The hardware guys, a lot of them went into telecommunications. David Stern and George Kiss both had their own businesses at some point. But nobody, except for the game designers themselves, stayed in games.

NK_ What were some of the last programs and/or projects that you worked on?
DT_ The last titles that I worked on were databases for the Adam. Recipe filer and something even more lame. ADAM projects that were in development included, more hardware options, disk drives, floppies, that type of thing.

NK_ How could the ADAM have been made successful like the ColecoVision?
DT_ Well, it seems that they didn't know how to manufacture it to strict quality guidelines. Maybe instead of using their factories in upstate New York (which again had never built anything more complicated than ColecoVision) they had farmed it out to another more experienced manufacturer, it would have worked. The printer, interestingly enough, was being built in Ireland and the printers were solid.

NK_ Were other printer types considered to replace the daisy-wheel?
DT_ The daisy wheel surprised most of us. Almost nobody knew about it until the first units showed up. They were manufactured in Ireland and they were surprisingly durable. I actually turned in several school papers printed on the ADAM printer and aside from the annoying skew of the letters, it was pretty decent. [08]

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

ColecoNation

COLECO CHAT

Dan'l Thompson [continued...]

NK_ Why did Coleco decided to put the power supply in the printer?
DT_ The printer had the most motors and moving parts and during the design they thought it would use the most power. The alternative, to have separate power supplies for the CPU and the printer, would have added cost.

NK_ Third party developers released a number of pieces of hardware for the ADAM. Should Coleco have taken the initiative and had more of these devices ready to go on ADAM's launch, rather than just a few games and software titles?
DT_ No, I don't think so. Lacking those things that you mentioned probably had little to do with the financial success of Coleco and the ADAM. Were there more than a handful of people who might have said, "Dude I would totally buy an ADAM if only it had a MIDI port"?

NK_ The Colecovision was a success because it was the highest quality gaming experience (not the lowest cost). So why the complete 180 with the Adam?
DT_ Well that's a great question. First, there was an eager need. Parents felt that their kids would be at a disadvantage if they didn't have some kind of computer at home, but financially computers at that time were out of reach for the majority of households. Somebody must have done their research and found a price point where they could sell a boat load of them and then we worked to that. Unfortunately, it was too complicated to build well, let alone test well, and in my opinion that was the root of entire quality issue.

NK_ What was the projected lifespan of the ADAM?
DT_ I would just be guessing, but in 24 months it would have been completely obsolete or at least needed a seriously upgraded version. Processor speeds were doubling every 18 months. Every word processor on the market was adding every feature they could think of. Interoperability was becoming a reality. The memory constraints and the architecture of ADAM were its main liabilities. Even game systems were outgrowing the capabilities of what we could offer. But if it had been successful, it would have been a cash cow that could have spun off other, ever more functional home computers.

NK_ Is there any truth to the rumor that an ADAM II was in the planning stages?
DT_ I had never heard of an ADAM II. But had the ADAM actually been viable as a product, there is no doubt that there would be an ADAM II. It probably would have morphed into more of a Macintosh type of device, everything in one box, all the software you would need, more easily expandable. We can only dream.

NK_ Was Coleco aware of the MSX computer? The MSX came out around the same time or a little after the ADAM and they're very similar spec-wise.
DT_ I remember MSX was big in Japan, but ADAM was basically an extension of ColecoVision. If you think about it there were really very few, affordable video chips, sound chips, and processor chips at that time. So it made sense that the MSX was very similar.

NK_ The ColecoVision BIOS includes specific "entries" for the Pascal language support. Why and who used them?
DT_ There were several BIOS entries that were never really used in production games, but the ROM space was there so they filled it. Someone thought that if we developed games in Pascal, and later in C, we would be more productive. But in reality, they were all hand coded in assembler, and several of the BIOS calls were replaced with better, faster versions, just put into the games.

NK_ On which computer was the BIOS code for the ColecoVision developed?
DT_ Most of the development was done on HP workstations which had a z80 emulator. We could write code, step through, set break points and store the program files out to digital tape. Later on we wrote and compiled on a VAX and downloaded or burned ePROMs directly from the VAX. The HPs were the way to go though. They were just expensive and there were never enough to go around. [09]

0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

eleven | 07.07

ColecoNation

COLECO CHAT

Dan'l Thompson [continued...]

NK_ Do you still keep in touch with anyone from your Coleco days?
DT_ Yes, Robert Bessel and I stay in touch. I run into Tom Fulton once in a while, because we are both involved in the Java and OO community in Hartford. And one of the developers just passed away in August. He worked on various debuggers and cross compilers, so we could build code on a VAX and download and debug it on the ADAM. He was a pretty clever guy, Bob Rizza. It seems like I'm always bumping into somebody with a Coleco connection. I ran into a software guy at Staples Corporate this year who worked on one of the alternate tape systems (there were several). You don't know where a "Colecoan" will pop up.

NK_ Did you have any idea that the ADAM would last into the 21st century?
DT_ It was an easy platform to develop for and it made a lot of people happy, even in its simplicity. So yes.

NK_ How has your career path been influenced from working at Coleco?
DT_ Coleco follows you wherever you go. Today when I work with people, especially guys in their 20's who probably grew up with ColecoVision, we always talk about it, what it was like, how they liked it, what their favorite games were. It helps build relationships with younger guys who probably think they don't have anything in common with you otherwise. Even my teenage daughter, while I was writing this, never realized that I worked for Coleco. So she wanted to know why I wasn't famous. But really, it was Coleco that was famous, not the people who made it happen. We just happened to be really good and really dedicated at what we did and that combination can take you a long way.

IN DEVELOPMENT

Squares!
by Harvey deKleine

Squares! originated from the "faces" sprites demo in Daniel Bienvenu's "ColecoVision Programming Guide," with the faces simplified into squares. I thought it would be fun if the squares would bounce around a playfield in a pong-like fashion leaving one square under the player's control. At that time, the other squares also bounced off of the player's square. This was just a demo to get back into programming. However, at some point I decided it might be feasible to make a game out of dodging the other squares. From there it was a matter of fine-tuning the look and feel of the game and adding the extras such as the sound, treasure collecting, invincibility, hyperspace, and opening and closing screens. The first four treasure icons to be caught are fruit followed by a variety of other shapes with the final one being a basic "Square!". The idea for having fruit was inspired by the fruit in Pac-Man.

For a long time, I was having difficulty with the squares bouncing off of each other. One weekend I scaled the game down to almost nothing in order to enter the 2006 Minigame competition. I'm programming in C and the libraries I'm using aren't really optimized towards 4K games. That weekend, therefore, was very tough. The good news is that I found some very big improvements (ie. bugs) in the bouncing routine while making the 4K version of the game. In the end, entering the competition was very beneficial. It didn't take too much effort to get the basic game structure and mechanics together. However, it did take a lot of effort to fine tune the game with an opening and closing screen, sounds, and difficulty levels.

I think the game is fairly difficult. You'll need a good joystick to play the game well. For me, this means I don't use the stock controllers. I actually use a 2600 compatible joystick, forgoing the hyperspace capability on the right fire button. There is a way to get extra squares before starting the game. At the start screen keep the joystick in the "up" position, then press the left fire button. The number of squares will increase, up to a maximum of 25. You will see the letters "CHT" appear at the right of the screen. There is also a way to get extra squares while playing the game. I can't say exactly how it's done, but it has something to do with pause and two simultaneous buttons. If you have a score between 15000 and 16000 (and also from 30000-31000 and 45000-46000), the treasures will appear one after the other with very little time in between. This is a good time to keep the left fire button pressed, so you will be continuously invincible and able to catch as many treasures as possible. [10]

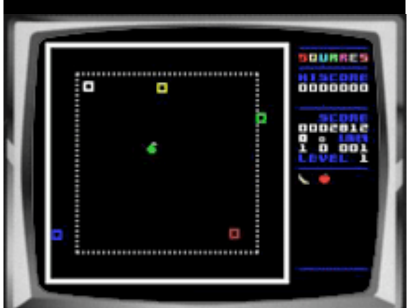
0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

ColecoNation

IN PLAY

Squares!
by Nathan Kozlowski

programmer: Harvey deKleine
label: Ken Roland
release: 04.2007
rom size: 17k
players: 1
controller: Standard Controller



Squares! [deKleine]

Squares! is Harvey deKleine's first published endeavor into the world of ColecoVision programming. Released in April 2007, the game includes a custom-made cartridge with full-color instructions. The world of Squares! is a harsh realm. Trapped within it, you are a white square running for your life with no exit in sight. Unfortunately, you're not alone. Also trapped within this strange prison are four additional colored squares (red, yellow, green, and blue) and their touch is lethal. Your only hope is to stay one step ahead of the pursuers and keep alive as long as possible.

The object of the game is to stay alive as long as you can. The longer it takes for the other squares to hit you, the more points you'll accumulate. At the beginning of a game, all squares are small in size. However, the longer the game progresses, the larger the squares grow and the amount of space that you have to maneuver diminishes. Treasures occasionally appear on the playfield during the game and if you touch them before they disappear, you'll be rewarded with either an extra life or invincibility and hyperspace credits. Invincibility is activated by pushing the left button and lasts for five seconds. A series of tones warn you when your invincibility is about to end. Hyperspace occurs when you push the right button and your square is randomly placed on the playfield. After you are hit by an opposing square, you are eventually placed back in the upper left corner when the coast is clear. Pushing the left button allows you to determine when you will reenter the game.

There are five difficulty levels for the game, but anything above the easiest level could be considered a challenge. Staying ahead of the bouncing squares (which all vary in speed) is quite a feat. The second you seem to have figured out their trajectories, a couple collide into each other and everything changes. The free-form movement in the game is something that requires getting used to. With the ability to move in eight directions, one would think that a less rigid joystick like the Super Action Controller would be ideal. However, I found that the standard controller made it easier to keep control of your square and the freedom of movement allowed by a more fluid controller did not really help me at my current skill level with this game. It will be difficult to use non-ColecoVision controllers with the game though, because the ability to plug a ColecoVision controller into the second port (to enable difficulty level selection) was not included. New versions of the game should definitely include this feature.

Squares! is a unique game for the ColecoVision library. The addition of features like invincibility and hyperspace help add additional levels of strategy to the gameplay. Also, the treasures add another goal, making it more than a simple exercise in avoidance. The design of the game is clean and minimal, keeping the distractions during gameplay to a minimum (something that is appreciated with this fast-paced challenge). The one case of graphic detail is treasures, which fits since these should be the items that stand out on the play field. Sounds are used sparingly, but each and every one is crucial in informing the player what is occurring during the game.

A negative side to the gameplay is that the game can get tiring fairly quick. Squares! is very much Pac-Man without the maze and power pellets. Without these two key elements, the ghosts in Pac-Man would have all the advantages. This is what it feels like when you play Squares!. You begin by marveling at your fluid movements as you travel across the open field, but you quickly become frustrated when you realize that your pursuers always have the upper hand. There's no place to escape to or to hide. There's no way to turn the tables on your opponents. There's no chance to rest. With Pac-Man, you knew that another maze always awaited you, but you still felt you had a chance to succeed. In Squares!, there's no goal in sight. No break to the intensity. All you see is a black void and ever-encroaching enemies. This doesn't make it a bad game, just a very difficult game on the reflexes and mind. It would have been nice to see some breaks to the action with maybe varying playfields as you advanced.

It's clear that a lot of time and effort went into the creation of this original game and it shows the second you turn it on. Harvey deKleine's passion for his game shows in the final product and is definitely a homebrew that is worth adding to your collection. Here's hoping that Harvey publishes more ColecoVision games sooner than later.