

REC'D 9/3/93  
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\$1.75

# CLASSIC SYSTEMS & GAMES MONTHLY

Vol. 2 No. 8

1993

GAME OF THE MONTH:

## GAME REVIEWS

2600:

Canyon Bomber

ARCADE  
FLASHBACK

BENTLEY  
COMPUVISION

BALLY  
GAME LIST

**CANYON BOMBER™**  
GAME PROGRAM INSTRUCTIONS

Model CX-2607

**ATARI®**  
A Warner Communications Company  
ATARI, INC., Consumer Division  
1195 Borregas Ave., Sunnyvale, CA 94086  
1979 ATARI, INC.

**AN IN DEPTH CHAT WITH THE MAN WHO  
DESIGNED THE VECTREX: GERRY KARR.**

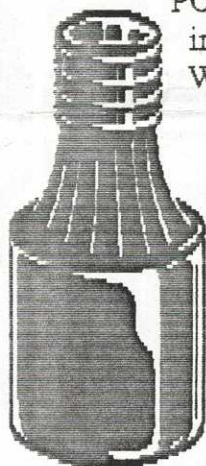
# CLASSIC SYSTEMS & GAMES MONTHLY

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## FROM OUR EDITOR

This issue deals somewhat with games and memories from the 1970's. While there was PONG and the Space Invader invasion, other events such as Watergate, Americans being held



hostage in Iran, tragedy at Kent State where four student war protestors were shot and killed,

and many other unusual happenings during a decade of unrest in this great country of ours.

Video games are a temporary escape from the realities of a sometimes cruel world. Nobody gets hurt and satisfaction in

conquering a game is an adrenaline boost. This could be our most classic issue to date, so sit back and join us for a look at the 70's.

JEFF

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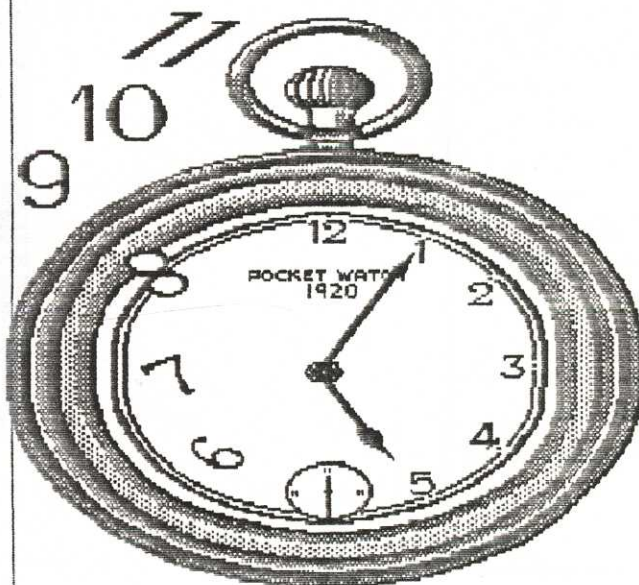
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# ARCADE FLASHBACK

By Rebecca Cooper

This piece will be the first in a series of installments that will take readers back to the years 1979-1983, the halcyon days of arcade games. Stand up games, of course, had been around for decades before videogames were invented. But with the videogame explosion of the early 1980's, arcade games were no longer limited to beachfront entertainment parlors and game rooms. Arcade games grew into a full-fledged entertainment industry and for the first time began to appear in bars, movie theaters, and grocery stores. One game alone, Pac-Man, raked in more money than all of the Star Wars films, sending shock waves through the movie and music industries.

Arcades and arcade games are still with us, but one has to wonder whether we will ever see another breakthrough of the early 1980's. One feature that distinguished early arcade games from their modern day counterparts was the freshness and originality of the early releases. A stroll through most arcades today reveals the same lack of originality that plagues most home videogames- aside from standard sports fare, most games require you to either save the princess or beat up someone like Ryu or E. Honda. Strikingly original concepts like the 1987 Atari Games hit Tetris, are quite rare and are much appreciated when they do appear.

Needless to say, popular themes in the early 1980's also spawned plenty of knock-offs. But a brief consideration of some of the early classics can only leave readers with an appreciation of the early programmers originality and creativity. Asteroids, Frogger, Tempest, Centipede, Qix- each of these games was a hit, and each of these games required players to do fundamentally different things- to hone new videogame skills and strategies. Practically every time a new smash came along, the arcade experience was reborn. Accounting for the originality of these early games is difficult, but undoubtedly the relative absence of great graphic capabilities was

a blessing in disguise. Particularly in the years prior to 1983, game companies could not rely on impressive or cute graphic displays to hook players, so they had to concentrate on the development of great game concepts.

It is difficult to overestimate the importance of the arcade classics in shaping our interest in the videogaming hobby. Most of us cut our teeth not on 2600 Combat, but on a stand-up Pong, Space Invaders, Asteroids, or Pac-Man. Even if you owned an Atari, and your mother said, "You can play those games at home! You don't need to go to one of those pool halls! Chances are you still dumped quarters into the stand-up games. It is no secret that many, if not most of the old classic game cartridges that we play and collect today owe a debt to the early stand-up machines. And many of the games released in the 1990's, whether home or the arcade, have similar roots in the early arcade games. How many horizontally scrolling shooters have followed the path blazed by the Williams classic Defender? How many invasion games followed Taito's Space Invaders?

In the months to come, this column will look at the classic early arcade games, and will consider many aspects of the early arcade game experience: the companies, the ties between the arcade games and the explosion of the home systems (for example, the war between Colecovision and Atari 5200 to get the most licenses and to market the "arcade sounds and graphics" we came to expect), the phenomenal success of games like Pac-Man, and most importantly, the games themselves. We will remember what it was like to insert the first quarter and how it felt to be "hooked" on our first arcade game. Remember the neighborhood arcade? The hometown "concerned parents" wanted to shut it down, and laws were enacted, and books and magazine articles were written about the evils of the arcade. But we loved the sounds and smells and were excited by the arrival of the "newest games" that are now considered cherished classics.

# TOPIC 2600

OLDIES BUT GOODIES

## Canyon Bomber

1979 ATARI CX2607

One or Two Players Paddle Controllers

By Jeff Adkins

Canyon Bomber is a direct descendant of Breakout. Instead of using a ball and paddle to eliminate bricks, planes and helicopters drop bombs from the sky into a canyon full of bricks. Sea Bomber is also included in the cartridge. Planes drop bombs onto a fleet of ships along the ocean. There are 8 different games for solo play against the computer, or for head to head competition against a friend. During any game the planes enter the playfield from the sides of the screen flying across to the other side. The speed of the aircraft also varies. Sometimes fast, sometimes slow. The canyon itself is made up of 8 rows of different colored bricks. By pushing the paddle button bombs are dropped from the planes. The bombs fall at an angle towards the bricks, slicing through them towards the bottom layer. A miss indicator is shown under each players score during most games. You are allowed 6 misses during each game. If a plane flies across the screen without dropping a bomb it is also considered a miss. The difficulty switches are used to determine how the bombs are dropped. In the (A) position players must wait until a bomb hits a target before another can be dropped. With the difficulty switch in the (B) position you can drop another bomb right away if you think you've made a bad shot.

The game variations are as follows:

Game 1/One Player- During this game after destroying bricks under others, the top bricks will then fall down into the canyon until resting onto other bricks or down to the very bottom.

Game 2- Same as game one but with 2 players.

Game 3/One Player- The bricks remain stationary in the air instead of falling.

Game 4- Same as game 3 but with two players.

Game 5/Two Players- The first player to reach 1,000 points wins. Both players now have unlimited misses. The bricks fall.

Game 6/Two Players- Same as game 5 but the bricks remain stationary.

Sea Bomber- During these games there are 5 levels of ships the aircraft can bomb. A line which matches each planes color can be adjusted to the appropriate ship level by turning the knob on the paddles. The ships on the bottom level are worth the most points. The bombs now fall straight down instead of at an angle. Game 7 is for one player, game 8 is for 2 players. In either game the first player to score 1,000 points wins.

Scoring for all games is as follows:

### Canyon Bomber

1st two rows of bricks- 1 point each

2nd two rows- 2pts. each

3rd two rows- 3pts. each

4th two rows- 4pts. each

### Sea Bomber

1st level of ships- 20pts. each

2nd level- 30pts. each

3rd level- 40pts. each

4th level- 50pts. each

5th level- 60pts. each

The key to getting a good score is the timing of dropping the bombs. It is much easier to hit targets more accurately when the aircraft are flying slowly. At the faster speed it will take a little bit of practice in order to achieve the same accuracy. With this type of game I usually try to set goals for myself during play. First 1,000 points, then 2,000, 3,000 and so on. The main strategy for the canyon games is to eliminate the bricks on the sides first, saving the middle ones for last. This is because you never know which side of the screen your plane will enter from, or at what speed it will be traveling at. Once there are only a few individual bricks remaining try to take out one with each pass of the plane. The game is much harder in the (A) difficulty mode. So its best to play with the difficulty in the (B) position to get an idea of when to drop bombs. This was the first game my parents bought for our 2600 nearly 15 years ago. Ever since I've played every video game the same attempting to get the highest score possible. Canyon Bomber isn't spectacular graphically, nor in sound, but it is a game that started me on my addiction to home video game phenomena.

### RATING

Graphics \*

Sound \*

Gameplay \*\*

Review Score: 9,999

# CLASSIC BACKTRACK

## **Bentley Compuvision**

197? Bentley Industries

Licensed by Magnavox

By Jeff Adkins

There was a time a few years back, when there wasn't any bosses, princesses to save, not even Pitfall Harry. In the mid 70's the home version of PONG was very popular. Many other electronic companies such as Bentley saw the success that Atari had with PONG and decided to manufacture their own self-contained video game systems. Just about all of these ancient relics consisted of hitting a ball with a paddle of some sort. The game chips themselves were housed right inside of the systems. Most of them consisted of three or four games. If you have ever played Video Olympics for the 2600, you can pretty much get an idea of what the early home video game systems were like. The Compuvision has four built in games. Squash, tennis, and soccer are for two players. Solo handball is also included, but is more or less a practice game for one player. Heres a brief rundown of each game.

Solo Handball- A player must hit the on-screen ball with a paddle, left towards a wall as many times as possible without letting it get by the paddle. After 15 misses the game ends. The amount of misses and scoring is shown at the top of the playfield.

Squash- Simply put, squash is two player hand ball. Player one serves first (it isn't actually a serve, the ball starts on the left side of the screen moving right towards the on-screen players). Players take turns hitting the ball back towards the wall. If one lets the ball get by, the other scores a point. The player that missed the ball then gets a chance for redemption by being the first to hit the ball on the following serve. The

first player that reaches 15 in any of the two player games wins. My wife beat me by one, 15-14 (arrrrgh!) with an incredible comeback after being down 13-6.

Soccer- Both players now have two paddles each. This game requires some quick moves due to the fact that the paddles are closer to the walls and each other. Players must be careful not to hit the ball into their own goals.

Tennis- A white line now divides the playfield. Both players now attempt to hit the on-screen little square of ball past each other. By hitting the ball with the side of the racquet it will move at sharper angles.

The system itself measures nearly 10 inches in length and is approximately 6 1/2 inches wide. There are two ports which hold the controllers very neatly when not in use. The two controllers are very small (3"x 2") and also light as is the system itself. Game select, reset, on & off and difficulty switches adorn the top or face of the Compuvision. The three difficulties determine the angle of the ball (steep/slight), ball speed (fast/slow), and the size of each players paddle. The system operates on 4(AA) batteries or an optional 6 volt AC/DC adaptor. Optional meaning it had to be purchased separately. A switch box was also included and as it states on the box "Can be hooked up without professional help", Hmmm.

Playing the games reminded me of the time period when that's all there were, PONG type games. It was new to me and my peers much like the Genesis, Super NES and other newer systems are to todays teenagers. In the next 15-20 years they too will be antiques or relics. Future Classic Backtracks will include more of the video game "cast of the past" including the sequel to PONG, Super PONG.

# COMPANY CAPSULE

## Bally Professional Arcade/Astrovision Astrocade Part II: Game List

Compiled by Russ Perry Jr.

BP1500/ABA1000

Gunfight + Checkmate + Scribbling[built-in]

- 2001 280 Zzzap + Dodge'em
- 2002 Seawolf + Missile
- 2003 Panzer Attack + Red Baron
- 2004 Clowns + Brickyard{Bob Ogden}
- 2005 Star Battle
- 2009 Astro Battle
- 2009 Space Invaders
- 2010 Dogpatch
- 2011 Galaxian
- 2011 Galactic Invasion
- 2012 Space Fortress{Bob Ogden}
- 2014 Grand Prix + Demolition{Bob Ogden}
- 2015 Pirates Chase
- 2016 Skiing
- 2017 The Incredible Wizard{Bob Ogden}
- 2018 Solar Conqueror
- 2019 Cosmic Raiders
- 3001 Tornado  
Hockey + Basball + Tennis + Handball
- 3002 Football{Bob Ogden}
- 3004 Drag Race/Desert Fox
- 3005 Bally Pin{Bob Ogden}
- 3005 Astrocade Pinball{Bob Ogden}
- 3006 Bowling[N.R.?)
- 3006 Basketball
- 3007 Soccer
- 4001 Bingo Math + Speed Math
- 4002 Letter  
Match + Spell 'N' Score + Crosswords
- 4003 Music Maker 1
- 4003? Astrology[P?]

- 4004 Biorythm + Calendar
- 4005 Creative Crayon (Coloring Book?)  
[came with or without Light Pen]
- 5001 Amazing Maze/Tic-Tac-Toe
- 5002 Blackjack/Poker/Acey-Duecy
- 5003 Checkers/Backgammon
- 5004 Roman Checkers[N.R.?)
- 5004 Quest for the Orb{Dave  
Armstrong} [N.R.?)
- 5005 Artillery Duel
- 5005 King Arthur's Adventure
- 6001 Arcade Demo
- 6002 Bally Basic
- 6003 Bally Basic Demo
- 6004 New Bally Basic System
- G7000 ZGrass Computer with  
Keyboard[Hardware]
- GI Joe[N.R.?)
- Palo Alto Tiny Basic[Astro?other?N.R.?)
- Voice Synthesis Module[N.R.?)
- Football[N.R.-replaced by 3002]

### The Bit Fiddlers

- <Machine Language Cart >
- Chicken![N.R.?)
- Goldfish Demo[N.R.?)

### George Moses

- Tape of Bach Inventions[music]
- Christmas Carols[music]
- Scott Joplins Ragtime[music]
- Music Assembler
- Home Budget Keeper/Clock/Astrozap  
Life

### Esoterica

Blast Droids  
Muncher  
Road Toad  
Super Slope  
Treasure Cove (Released under Spectrecade Line)

### L&M Software

Ms Candyman/River City Gambler  
Nautilus/3D Tic-Tac-Toe  
Sea Devil  
Secret of Pellucitar  
Exitors Revenge/The Mummy's Treasure

### New Image

Sneaky Snake  
Nam-Cap[a.k.a Puke-Man, or Up-Chuck]

### Wavemakers

Castle of Horror/Four Famous  
Freebies{Mike Peace}  
Dungeons of Dracula{Mike Peace}  
Flying Ace/Clue  
LT:Little Terrestrial{Mike Peace}  
Monkey Jump

### Hardware

Lightpen  
Voice Recognition  
Stereo Adaptor

### Perkins Engineering

16K Blue Ram Expansion/Keyboard  
32K Blue Ram Expansion/Keyboard  
8K Basic

### R&L Enterprises

64K Memory Board

### Viper Systems

Viper Computer  
8K Vipersoft Basic

### Never Released(?)Games

Monkey Kong  
Space Gauntlet/Quadron  
Omega Valley/Astro Terror  
Viperion/Art Show Fireworks  
Max Robot from Space/Horserace  
Clue/Flying Ace  
Maze Race/Obstacle Course/Space Chase  
Slot Machine/Perversion  
Music Composer/Yahtzee  
Notematch  
Guitar Course/Tuning/Notematch/Chord Progression  
Backgammon/Obstacle Course/Tournament  
Pack Rat I&II[Two cassettes?One?]  
Lookout for the Bull[Two cassettes?One?]  
Whiz Quiz  
Tic-Tac-Toe  
Tornado Baseball[Tornado Hockey/Baseball?]  
Demolition Derby  
Garbersville/Ten Pins  
Starship Command/Putt-Putt  
Star Trek III{Mark Keller}

Russ notes that many of the games were done by the so called "underground" and are questionable.

# THE VECTREX VECTOR

## Pioneers of Gaming

A chat with Vectrex designer Gerry Karr.  
Interview by Jeff Adkins.

Jeff: How did you become interested in programming?

Gerry: In school I hated programming. I was known more as a tinkerer, a fix it guy, ham radio operator. I was into everything. When I got to college they had computers where we had to use batch processing and punch cards. The kids were really into it. They would sit in the computer center and just hang out all night, waiting for their jobs to come out.

Jeff: If you don't mind my asking, when was this?

Gerry: I started school in 1969 at Cornell.

Jeff: When you became involved with the Vectrex, did you work for GCE (General Consumer Electronics)?

Gerry: Oh no, not at all. Basically I learned nothing in school about programming other than some theory. And they didn't have micro-processors actually invented yet. So then I came out to California and started working with my cousin on a facsimile machine, which was pretty advanced for that time because nobody even knew what a fax machine was then. In fact the whole thing with computers was really great back then because you could say to people, "I work on computers" and they would say "WOW". Now of course with computers it's nothing. Back then I'd mention something about software and people would say, "What's that plumbing? Carpets? You sell Carpets?"

Jeff: So you ended up in the Silicon Valley about the time that it began to grow?

Gerry: Yeah, I think so. I was out here in the early seventies and like I said, we were working on a fax machine and that failed. But it really got my appetite wet as far as micro-electronics. Then I worked for all these little companies. One of them was making one of these apartment entry systems. Which I think was actually the worlds first programmable micro-processor. That was pretty interesting. We had to program that using paper tape. If there was a snag when you were reading your program then you had to start it over again and wait another half-hour.

Jeff: Pretty pre-historic eh?

Gerry: Yeah it was unbelievable. But still it was wild at the time because it did something. So as opposed to where we used to have a big drawer full of random logic chips, then take and use a little micro, it kind of clues you in that it needed all different supply voltages like -5, +12 etc., to make everything work. It was incredible, amazing. Then of course the biggest invention was the EPROM. That was like unbelievable. When Intel invented the EPROM I think it was the most revolutionary thing of all. For the first time you could have a permanent storage of your program. You didn't have to load off the paper tape each time. It was just unreal.

Jeff: So you saved a lot of time?

Gerry: Yeah. You could build a gizmo that would just turn on and do something. Before that the only way you could do that was to have massed ROM. So you would have to go through the factory and order thousands and



thousands of the things. There was no way to make it one off of something, until they came up with EPROM. My first exposure to EPROM was, hmmm, I don't know. I guess the early seventies. I can't remember exactly what year. 1973, 74 maybe. I'm not sure.

Jeff: After you finished college?

Gerry: Yeah right. 1974 maybe. I remember in 1975, I had already met up with this lady. We were already together and we were going to have a family. So we moved up north to get away from the city. A lot of people were doing that then. We moved to northern California but there was mostly only construction work available. I don't do construction. Then I finally found a job with a company that made electronic telephone equipment, PBX. I actually learned quite a bit there about high speed logic and the design of larger systems. After a year in northern California I came back to LA raring to go. I had a lot of technical, specific knowledge of chips and circuit designs under my belt. I worked for a number of companies on things like high speed tape drives, disk drives, mini-computers. I sort of got the basic idea of how stuff was built. Techniques and everything. Another thing was meeting all the different people. Especially later on when I needed something.

Jeff: Did you know anyone from Atari?

Gerry: Back then? No not at all. I wasn't involved in any kind of game stuff at that point.

Jeff: When did you become involved with programming?

Gerry: Well the game stuff basically happened when I started working for Smith at a company called Western Technologies. I met this guy Jay Smith at an electronics store. He was buying a bunch of batteries, and I was there buying some capacitors or something. So we started talking about one thing or another. The funny thing was, well you see he looked kind of familiar. It turned out that I was working for a

tape drive company that made these vacuum computer tape drives which work on a vacuum principle at high speed. It turned out that Jay's office was below in the same building. So he started using me for consulting. Part time work that is. I wasn't calling myself a consultant yet quite at the time. I was a young guy, what did I know. Anyway we ended up talking about the toy biz. I had always been interested in toys I guess. He was like my entree into the business. The first thing I did for him was, well, he was making an electronic slot car thing like a computer attachment for slot car sets, AFX racing. Basically I designed that for him. We had sensors on the track to sense the cars going by and it would show LED score keeping and lap times on the grandstand.

Jeff: That was the mid-seventies?

Gerry: Yeah. I think it was 1977 when I did that for him. I was still pretty new to using micros. I think it was right around the time Mattel started coming out with their handheld games. Those were really cool games. When they came out nobody had seen anything like it. So we would take those apart and see how they were built. It was like amazing, one chip in there and a bunch of LED's. They were using this Rockwell chip. For some reason or whatever, Jay and his clients would always end up using a Texas Instruments chip which was a different chip but the same idea. After I did that for him he then wanted to do something with LCD, which is lower power like watches use. You know about LCD's?

Jeff: Liquid Crystal Displays?

Gerry: Right. Well we had to design our own driver chips. There was nothing for liquid crystal at the time. I mean most calculators used LED. So we actually designed our own driver chips and the whole system. It was a programmable game cartridge system believe it or not, handheld. It was called Microvision. So Jay managed to sell it to Milton Bradley.

Jeff: You designed the Microvision?

Gerry: Yeah I designed it.

Jeff: By yourself?

Gerry: Well we really designed it together. But I mean I did all the electronic part of it. I guess we sort of worked on the concepts together.

Jeff: He more or less gave you ideas on what he wanted and you took it from there.

Gerry: Yeah. He wanted it to be cartridge programmable, so then it would be better, supposedly better than the Mattel games. Also theoretically the battery life would be longer. Mattel games had a terrible battery life because they had bright LED's. So the LCD concept was supposed to have these advantages. The programmable video games were starting to come out. I guess that Fairchild maybe or something, but we had a handheld programmable. The regular programmable video games would have a ROM in the cartridge. The deal was with the cheap thing we were doing, cheap micro-processors don't take an external ROM, they have all the ROM built in the chip. So there was no way to make it programmable right? So I came up with the idea to put the whole micro into the cartridge. Everyone else said yeah that's cool, so we ended up doing that. It was wild and we laughed about it. It was a crazy idea. If that product would have lasted for the first year, which I guess it didn't, we could have gone to more advanced micros as they came out and put them in the cartridge.

Jeff: Milton Bradley bought the rights to Microvision and marketed it?

Gerry: Yeah, they licensed it from Jay and I got some kind of cut from it.

Jeff: It phased out pretty quick? Never really made it or what?

Gerry: No it sold. I think it was probably good

for about a year, maybe a year and a half. Most toys don't go past one year. See we really tried to do the thing like what they ended up doing with Gameboy. The only thing was the Gameboy was ten years later. Our screen was like Gameboy, dot matrix, or a square dot matrix. At the time though, with the technology of course, there was no way we could have the resolution of a Gameboy. So we did what we could. In fact the following year I designed a color one and we had working prototypes. We sent it to Milton Bradley and they sent it back in a big scrap heap.

Jeff: What, all smashed up?

Gerry: Yeah. They said they weren't interested. But it worked and everything. We couldn't believe it because we thought it was so cool.

Jeff: What did you do after designing the Microvision?

Gerry: Well, I was really kind of having fun. I was working my butt off on stuff ya know. Then of course I didn't mention that there were other people at the company, who were doing other things. Everyone worked on different toys. They were working on trains and other stuff. I could rattle off a million toys we did. There was a voice changing thing which never sold. When it finally sold like ten years later, five companies came out with it in the same year. We were trying to sell that voice pitch shifting idea for years. Then we did an electronic music box. Oh, we did try to do a pretty fancy LCD thing with more resolution and it was going to be a projection system. It was a tiny one inch LCD with lots of resolution and a projector. But Jay wasn't able to sell it. You see with a lot of the stuff we would build the prototypes and then he would go and try to sell it. If he couldn't sell it we would move on to the next thing. We were young and what the hell. Then we did the game watches. Did you hear about those?

Jeff: You mean like Pac-Man watches?

Gerry: No. It was the same year as those, but we came out with one called Gametime. That was a connection with Ed Krakauer. Let's see, I think at that point Jay had Gary Niles working for him as the vice president. Gary is now up at Galoob. I guess he had a connection with Krakauer. Krakauer was a high up guy at Mattel. He was out on his own now and started up GCE with this other guy Jeff Rockwas. Through that connection we did those game watches, Gametime, Arcadetime.

Jeff: What was there something special on the face of the watch?

Gerry: Yeah. Each one was different. The Gametime had these things that was like a dot matrix, but they were round dots with an upper eyelash and a lower eyelash over the eyebrow around each dot. They looked like the CBS sign. We came up with games utilizing those patterns. One of the favorites was a game called, Firing Squad. These bullets would come at you between one and six at a time, from the right to the left. They would go, bink, bink, bink, as they moved across the screen towards you and you would have to move your character up and down to avoid the bullets and so they came faster and in large numbers. There was always a path that you could scoot through ya know, but it would get faster and faster. The highest anyone got was 504 I think but that was really beyond being human.

Jeff: You are talking psychopath stage right?

Gerry: Yeah. I gotta tell ya that was a really fun watch. Then because that one was fairly well received, they decided to do more. They got other guys involved in designing the games. I was in charge of electronics on that one. I worked on games with one of the model makers of the company, Tom Sloper. He helped come up with game ideas for that. He sort of ended up taking over the games after that.

Jeff: He's with Activision now correct?

Gerry: Yeah. He's got some job there. I think he's producer or something. There was a whole bunch of other guys there working for Jay, I didn't mention any of their names. It was a full service toy company. We had a model shop and one of the guys knew how to shoot rubber bands really well and before he knew it he taught all of us how to shoot rubber bands. So then there were these constant wars going on. They would erupt at any time of the day.

Jeff: Just to break the monotony right?

Gerry: Of course. It was this crazy, zany toy company. Then Jay got the idea to get a public relations agent. They would come in with camera crews and film us doing these rubber band fights. It was really something.

Jeff: It sounds like you had a lot of fun.

Gerry: It was fun, I mean there was so many projects I can't even remember a damn one of them. There was like billions of things we were doing. There was things I was doing, things other people were doing, and things we were doing together. It was amazing how much stuff we did.

Jeff: Eventually you left Western Technologies to work for GCE?

Gerry: No, well let's see. I worked there until the Vectrex was finished being designed. I had an agreement with Jay for royalties but he turned into a con man during the Vectrex thing. He decided to not pay me anything on Vectrex, so I ended up quitting.

Jeff: So you didn't actually work for GCE?

Gerry: No, I did. I went off and became a consultant. So I did some work for them as a consultant. After I quit from Jay I had to do something. He would scream, "Aw you're my competitor, it's not fair".

Jeff: Did you program any games for the

Vectrex?

Gerry: The concept and basic design of the Vectrex that came out of, like I told you, we were always working on LCD games trying to up the resolution. One day Jay was talking to me and he said, "Well you gotta come up with a higher resolution game". He was always talking to me like that ya know. Finally I told him, "Look man, LCD's are too expensive. If you wanna have higher resolution you're going to have to use a tube". So a couple of us went to the electronics store and we picked up a one inch picture tube. We were going to make a battery operated small handheld game, using the picture tube. It would have been something like the Gameboy. Again, this was ten years before it. At the time it was the only way to get that kind of resolution. So we ended up telling Jay about the thing and he liked the idea, so we continued to work on it. We got it up to three inch, no five tube. That would still be able to operate on batteries. I was basically the one who made the first functioning prototype. We did a copy of Asteroids on the first prototype. I did most of the hardware design and the programming. The guy that helped with it on the programming, Richard Moskowski, was a top notch programmer. He's one of these wild and crazy amazing programmers. He knew all about stuff like how to organize. He also taught me a lot of programming terms I wasn't familiar with. Then this other guy John Ross, he got involved later into the production designs of the circuits and stuff. We did the best copy that we could do of Asteroids. It turned out quite nice. That's kinda like how the vector idea came into. I mean we wanted to come up with something that was a little different. So that was the answer, lets go with the vector. Then Jay started showing the prototype around. He actually had it sold to Kenner at one point, then they backed out. At the time it was going to be called Mini-Arcade. When we were doing this, you had games like Battlezone and Asteroids. That's what we were trying to copy. The circuit

design that we came up with was probably really super cheap. Where as you open up an Asteroids it would be full of huge circuit boards, we came up with a really cool way of doing the vectors. If you open up a Vectrex, there's hardly anything in it. But of course by today's standards, there probably looks like a whole lot in the Vectrex.

Jeff: You did the original design of the very first Vectrex?

Gerry: Right. We took out a patent. Jay and I ended up on the patent because he was always on everything. I think he did another patent. Maybe the amplifier circuit with Ross or something. We also had this software copyright protection scheme, which as programmers we all hated it. But Krakauer and Smith wanted that in there. At the time all the video game companies were worried that competitors would put out games for their system. Wasn't that stupid? It's so ridiculous because it prevents a system from catching on. But they never realized that. Every cartridge for the Vectrex has a little copyright message in the ROM. The base unit scans it on power up. If it doesn't have the copyright message it won't run it. The theory was that another company wouldn't be able to put the copyright message in their ROM because if they did, it would be copyright infringement. In fact that was their main concern. We were concerned about making the games fun and they were concerned about putting in a copyright protection.

Jeff: It seems like a lot of the game companies were like that. The people that made the games were enjoying their work, while most of the big shots at the top were just out for the money and could care less. You then sold the idea to GCE?

Gerry: Yeah. Kenner ended up giving it back. It was still in five inch form. It was pretty cool even in the five inch. I really liked it.

Jeff: That was during 1981?

Gerry: I think it sold retail in 1982, so it must have been in 1981 or earlier. Then it was picked up by GCE. They switched it to a nine inch tube. They felt that it was more marketable that way. We were all groaning, "Now it has to plug in to use power".

Jeff: After it was sold to GCE, you guys started programming games for it?

Gerry: No, GCE turned around and sold it to Milton Bradley. Then I guess they made their final deal which I was referring to. Jay turned into a conman. He kept all the money and we never knew what happened with the deal. Later it turns out, he bought a mansion in Brentwood. Anyway, we had between January and June to come up with all the games.

Jeff: The first six months of 1982?

Gerry: Right. Because you had to order the ROMs in June in order to get them in time for shipment at Christmas. They hired a whole bunch of guys. They got these really cool guys who were students from Atlanta, programming majors, engineering or something. He brought in people from everywhere. We had this large room that he rented. Programmers were all around in this big room.

Jeff: 30-40 programmers?

Gerry: No not that many. 10-15 maybe.

Jeff: So all you guys worked in one big room designing Vectrex games?

Gerry: Yeah. We started out in the regular company, then Jay went out and got this other place for us.

Jeff: Did you start any rubber band wars there?

Gerry: Oh yeah, all the time. I used to wear tongs on my feet so I was a dead man. But Ross he would wear those large combat boots, so he didn't have any problems. It was kind

of an unwritten rule though that you never shot anyone in the face. Nothing nasty like that ya know.

Jeff: Were the games a team effort or were they mostly solo efforts?

Gerry: Mostly solo efforts. I guess Ross and I were in charge of all the development stations. Oh, we also designed our own emulator for the 6809. That was the micro they used. We came up with that too, from scratch. We were writing our own development software for the 6809 to run on the crazy CPM machines. It's like, we had all background stuff that had to be done just to get going, which had nothing to do with the Vectrex. We had to design the circuit board and a circuit for the development system. We also had to write Z-80 codes just to run the emulator that ran the 6809. We had a guy, Mark Indictor who was writing all the Z-80 stuff. Then he later worked on Vectrex games when he was done with that. Ross and I were involved in getting the hardware designed and built for all the development stations. Everybody needed one to work one and we hadn't even finished designing this thing yet. So they had to start their games with nothing to run them on.

Jeff: This was somewhere around January of '82?

Gerry: OK, right. Is that when it was sold '82?

Jeff: Yeah, I think it was shown at the winter CES then Milton Bradley bought it.

Gerry: Right. It must have been at the winter CES because GCE had their own booth with the game watches set up.

Jeff: The watches you did?

Gerry: Yeah. I guess they were doing pretty well with those at the time. Then they sold the Vectrex to Milton Bradley. We didn't know what the hell was going on. But we thought it was pretty cool though, that they sold it to Milton Bradley. Why not. It had a better shot of

making it with them.

Jeff: What were some of the games you were involved in?

Gerry: Well, see, my responsibility was designing the overall system. Because I had done the first game, Asteroids along with this guy we called the Mouse, I was responsible for the system software that was contained in the base unit. There was general sub-routines for drawing vectors, putting up the scores, running the music and the sign on message. All that crap ya know. All the utility sub-routines, that's basically what I did. That was intimately related with the hardware. In fact, these guys all had to have a pretty good understanding of the hardware. Some of it was not fun, but they got there.

Jeff: Once you were able to figure it out, it was pretty simple to you guys?

Gerry: Well, when you're doing something like programming on a computer all you do is put or write bits into certain memory locations and that turns the thought on screen. But with the Vectrex, you're writing the vectors in real time onto the screen. So your program has to be aware of what's going on with the hardware constantly. Even though you have things like interrupts you still have to be aware of what's going on. Plus the hardware kept changing. So the shapes of the things they put on the screen might change when we changed one of the components or something. Then they would have to redo stuff, ha, ha. Anyway, we had a guy that was devoted to writing all the songs. Then we had other guys who were good at this or that. But in general most people had one game. I remember we did Berzerk. One guy did that. Mouse did Clean Sweep. The two guys from Georgia were working on another game. We also had this guy Duncan from Scotland or something. John Hall did the game that was contained in the base unit.

Jeff: Minestorm.

Gerry: Right. Minestorm obviously started out as Asteroids, but they had to come up with enough differences so it wouldn't look exactly like Asteroids.

Jeff: So Atari wouldn't sue you?

Gerry: Yeah that was the whole idea.

Jeff: How long did it take to do each game?

Gerry: I remember Jay was extremely involved with Minestorm. He spent a lot of his own time on that one. Where as a lot of the other games he wasn't involved at all. But he was always monkeying around working on Minestorm. Each game I guess took between three and six weeks. You gotta remember these games were 4K. Games now have 2,000 times as much memory as we had. Which actually makes it more difficult for us back then. The difficulty was you'd get the game written, but then it wouldn't fit.

Jeff: You would then have to chop here and there?

Gerry: You would either have to cut out things or rewrite each routine so it would be more compact. That's kind of what my job was really, just going around trying to help everybody if I could. Rewrite certain routines and give them ideas. In fact a lot of them got to where they could fit the game in, but they couldn't fit those stupid music songs in. Marketing or whatever decided that it would be nice to have a tune associated with these games. We ended up sticking a lot of the tunes in the base unit for specific games.

Jeff: Each specific game had its own sound built right into the Vectrex itself?

Gerry: Yeah that part of the ROM in the base unit would only be used by that game.

Jeff: The sound itself was built in?

Gerry: Yeah because it couldn't fit anywhere else.

Jeff: For all of the games?

Gerry: For a lot of them. For the first round of games. There was no other way to squeeze it in. We were on such a schedule ya know. If these guys had to rewrite a game in order to get the song in, we wouldn't have been able to do it.

Jeff: OK. Where the hell were we?

Gerry: You were trying to get me to say what games did I do. Well, I didn't do any of the first round of games.

Jeff: How many games were made during the six month period you were allotted?

Gerry: We did twelve I think. I'm not the greatest with memory. Some of the guys would remember everything, but I think it was twelve. If you look at the box, they have a whole bunch of games printed on the box. So it had to be those games.

Jeff: Did they make the overlays at Western also?

Gerry: Oh that's right. We had those overlay things, because it was just black and white right?

Jeff: Right, they add color.

Gerry: I guess we had these other people, because it was a toy company, like artists that worked there. We had this crazy Japanese model maker named Walter. I say he was crazy because he was as insane about what he did, as we were about electronics. We thought we were perfectionists anyway. I guess if you look at the thing now it looks like a piece of crap.

Jeff: Who came up with the idea for using the overlays?

Gerry: Good point. I don't have the slightest

idea whose idea that was. It might have been a Jay idea. I'm not sure exactly. That's an interesting question, you've got me stumped. I guess we were just desperate to get some color in there somehow.

Jeff: Did you program any of the later games?

Gerry: Now see you're going to throw your tape away for your interview. The only game I did was, hmm, what the heck was it? This is what happened. After I quit working for Jay, he decided to give us the shaft so I quit. GCE hired me to work on believe it or not, the Basic. They wanted to make a basic cartridge that ran basic language. So I started working on that. I was gonna have extra RAM, because the Vectrex itself has 1K of RAM. Which is pretty good but I thought I'd add a little more. I got a hold of some source code of some basic and actually had the damn thing running when they pulled the plug on that. Then Jay and I became enemies for a while. He was mad at me for leaving or something and I was mad at him for not giving me my royalties. Then it came time to do this game Spike. First they were going to have me do it, then they were going to have Jay do it. But he didn't know how to do the speech. So they had me do the speech part, that's what I did on that one. I wrote the speech for the animation that goes during the speech. He did the parts that are going when it's not doing the speech, the rest of the game. He had 4K for his part of the game and I had 4K for the speech and my graphics during the speech. Very bizarre. We handed our two halves in because we practically weren't speaking. That was I think the closest I came to actually doing a game. Other than of course doing the first Asteroids. But that was a group effort with me, Mouse and Ross. We all programed that in a couple of nights. Shows what you can do when 4 a maniac. We used to do all nighters constantly.

Jeff: Everyone was able to work on the games at any time during the day or at night?

Gerry: Yeah. There would be people there all

night. But it wasn't casual. It wasn't like Apple Computer, where it's casual. It was intense. We were constantly exhausted. There was no thought of anything like going on vacation, ever. It was just work ya know. Everytime I saw the Mouse he'd say, "Hey Karr hows it going?", or, "Let me show you what I got on the Clean Sweep thing". Or he would find some new way to write a routine faster and then he would go tell everyone about it. It was great. To get a complete picture of course, you can't just talk to me because I can't remember everything.

Jeff: You are doing just fine.

Gerry: Now I'm starting to remember. There was some kind of backroom in this place. See, we were next to the Henry Radio building in West Los Angelos. There was a sideroom, backroom or something. It's not in my memory of what was in that room. There were some funny guys. We had this one guy, Louie. Actually I think Louie may have been gone by the time the Vectrex was started. Oh, we also had game calculators after the game watches. Anyway there was this guy Louie the vegetarian.

Jeff: Everyone had nicknames obviously.

Gerry: We all got nicknames. As far as myself, they called me Karrstein. There was a model maker this guy named Dick. Dick something or other I can't remember his last name. He was an engineer or something, young guy. When he met me I told him my name and he said, "Karr that doesn't sound Jewish. You should have some kind of name like Karrstein". It just so happened that everybody heard him say that so from then on I was known as Karrstein. Then Schneider, the guy in the office next to me, for some reason started to call me Tex. I never knew why that was. I think it was when we did interviews on that show Real People.

Jeff: You guys were on Real People?

Gerry: Yeah. Then there was the secretary

downstairs. She was a complete space cadet. She was in her fifties I think, which was old to us right. If you wanted to make sure that something got done, we just had to talk to her. She was a nice lady though.

Jeff: Were there any games in the making when the Vectrex was discontinued?

Gerry: Well, see, this is what happened. Everybody ended up quitting working for Jay. He had done the same deal with a few other people. He would tell them they were getting 5% and it turned out they were getting zilch. Some of them went to a company called Datascan. Then Datascan hired them out to GCE. So all these guys ended up doing more games. A lot of them anyway except maybe Duncan who might have went back to Scotland. There was Mark Indictor, John Hall and others. As I told you, we had all these artists and other people. They all were working for GCE now. We had left provisions in the thing for a light pen. I guess Ross started getting involved with that and he did the color wheel thing. He and the Mouse both got involved with the software for that. I think there were a couple of games using the color wheel, if I'm not mistaken. They called that the goggles. The goggles actually had these rotating color discs.

Jeff: For use with 3-D games?

Gerry: 3-D and color all in one.

Jeff: Games like Crazy Coaster, Minestorm, and Narrow Escape. There was also supposedly a 3-D Pole Position that was never released.

Gerry: Yeah. Pole Position was done by Mark Indictor. I think there was some adventure games too.

Jeff: John Hall did Dark Tower. Was it ever released?

Gerry: No, not that I know of. I saw John Hall in the Rose Cafe a few years ago. Anyway



before that I had apparently written a letter to one of these video game magazines. I got a whole stack of letters from readers, which unfortunately I was too lazy to answer then. It was really cool to receive these letters but I never answered one of them I'm embarrassed to say. But I remembered these letters. When I saw John Hall I said, "Hey man, you got any of those old games? There are people out there that want them. Why don't we just ship it to them for the price of parts or something?". What did I care, there's people that want them. It was too late to make money on them, but he didn't really want to.

Jeff: Was Dark Tower completed?

Gerry: It was finished and he's got it. I think Mark Indictor has a game too. Mark, I'm not too sure if he would want to do it or not. I had a whole collection of screwy routines we were working on. All these crazy curved line drawings and things. That's one thing a Vectrex can do that a TV can't, draw curved lines with no jaggies. Of course it's no big deal now I guess, if you have a high res-monitor.

Jeff: So you were thinking about possibly doing some more games, but John Hall didn't want to?

Gerry: Well no, it wasn't a matter of that. I'll tell ya what really killed it for me. We were using these crazy Z-80 machines. It was called Innersystems. It ran that old operating system CPM. That was what our whole development environment was based on. I just didn't have one of those machines. I mean IBM PC came in and kind of obsoleted all the CPM stuff. I never had my own machine. When I was working on stuff either Jay owned it or GCE owned it. I didn't have anyway of working on the damn thing. I have some old disks, those old eight inch disks, with just a bunch of crap on it. Maybe some interesting sub-routines or something, but I have no way of running it.

Jeff: Do you still have a Vectrex for yourself?

Gerry: I have a couple that I just snagged along the way. I don't even have goggles! I had goggles, but I don't know where they've gone.

Jeff: There's some other stuff that from what I understand was planned but never released. Perhaps you can help me out. Was there a printer?

Gerry: I didn't hear about that.

Jeff: A disk drive? Wafer tape drive?

Gerry: A wafer tape, ha, ha! Oh I remember that. Wow does that take me back. I don't know. What you're talking about was that fuzzy area before it was obvious that all personal computers would have floppy disks on them. Do you remember that crazy Adam computer from Coleco?

Jeff: Yes.

Gerry: That was before they realized that tapes were stupid. There was somebody marketing a thing called a wafer tape, I remember that. This salesman would come around and try to interest us in it.

Jeff: You worked on the computer adaptor with Basic?

Gerry: Yeah. I actually had it basically done.

Jeff: There would have been a keyboard also?

Gerry: Let me tell you how close I was to having this done. I had the hardware completely done. We had the source code and I found some guys down in Orange County who were into basic than I was. So the three of us were working on it together and actually integrated basic in. We had to write some special drawing routines of course. We were getting it all integrated and we had two more days to go, to get it all complete and compiled and everything together. I mean assembled and linked. Krakauer called me up from the CES show. I was getting ready to finish it off and bring it

there. Basically what happened, there was a license fee that had to be paid for the source code and he started getting cold feet about it. He wasn't sure if there was a market for it anymore.

So he told me to stop working on it. I said, "Well a, but Ed were only like two days from being done". Of course that was two days of all nighters. Then he said, "Can't you just make a thing that looks like basic, but isn't really basic?". I said, "Yeah, well I could have done that in the first place like you were talking about, but you told me you wanted to see real basic".

Jeff: So you got pretty ticked off?

Gerry: Well it was weird. It was a learning experience.

Jeff: How did everybody else feel when they found out that the Vectrex was being discontinued?

Gerry: I don't know. I don't know how I felt. I guess it was disappointing. I had heard some predictions that it was going to flop, so it didn't come as a huge shock. But, it was a shock ya know. At the same time it was a quirky, nutty little thing. It would always be limited. It couldn't do certain things, like a lot of stuff on the screen.

Jeff: Would it have been possible to expand it for more memory?

Gerry: Yeah. The cartridges were designed to go up to 32K, which was unbelievably large at the time. Nobody had even heard of a 32K cartridge then. We had all that set up there and ready to go. We probably thought it would last a couple of years. In fact I think the second generation of games probably did use 8K. I know Spike did. I can't think of the other games. OK, you want a funny story about Vectrex? There were these guys like the Bobbin twins. They called them Phil and Jim. For some reason they were always together. They originally worked for Jay. Then they ended up working for GCE. Ed decided that he wanted to

make this thing into a Text Terminal. If you notice, the Vectrex has a vertically placed screen. Opposite of a television. At the time they had word processing systems that were directed like that to show a full page. He decided he wanted to make an adaptor so that the Vectrex could show a full page of text. That was defined as 66 lines of each character per line. So he would ask us about it and we said, "You've got to be kidding, that's ridiculous. The Vectrex can't do that. Then Ed said, "Well how about if you redesigned it a little bit then can it do it?". And we'd say, "Not really". It would be expensive to do that and basically impossible because in order to do that you're talking about not being inexpensive anymore. You're talking about a \$500,000 terminal. But mean while, we found these guys Phil and Jim and they said they could do it. They gave us all these feasibility studies. I guess they sort of taught us the rules of consulting. You don't actually do anything you just sort of write feasibility studies and talk lots of jargon and stuff. To make a long story short, after a couple of months they weren't able to come up with it. Actually now that I think about it, Phil was kind of instrumental in pushing this thing towards vectors because he was a really good video game player. I remember Battlezone was one of his favorites. We used to go down there all the time and play it. I guess I'm rambling on. What did you ask me?

Jeff: If the Vectrex could be expanded for more memory.

Gerry: OK, right. Well that was one kind of expansion. But the computer thing was really crazy because I don't have any of the hardware. As far as why I didn't keep that computer attachment, I'm not sure. Maybe I do have it in a box somewhere.

Jeff: There was going to be a keyboard?

Gerry: Oh yeah it was already built. I chopped up a keyboard from a Vic-20. Remember those?

Jeff: Yeah.

Gerry: You know, just the switches from a Vic-20. I had my own hardware design. It plugged in, worked and everything. It was for real.

Jeff: There was going to be a modem also?

Gerry: I didn't know about that. Modems were really expensive at the time.

Jeff: OK, what about a Touch Sensitive Screen cart? Anything on that?

Gerry: I didn't hear anything about that. One of the coolest cartridges was that one Mouse did where you could do your own animation.

Jeff: Animation?

Gerry: Yeah right, that was one of the best.

Jeff: Now for the question everyone has been waiting for. Did any of the programmers hide any Easter eggs or initials in any of the games?

Gerry: Well now you could ask that. We might have had our initials in there, but you gotta remember we were dealing with 4K. It wasn't really the time for that stuff.

Jeff: So there was initials hidden in some of the games?

Gerry: Yeah, but I don't remember which. We didn't really focus on that at all.

Jeff: Well you see, a lot of the people who collect Vectrex games along with games for other systems, are very interested in hidden stuff like eggs and initials. Especially the hardcore gamers.

Gerry: Well let's see what could I say about that. I remember people would be asking, "Are you putting any Easter eggs in that?". The 4K thing was such an amazing limitation. I mean, if you figure one instruction on a micro-processor takes two bytes or something, average, you have

hardly anything to work with. To use up whatever it would take 20, 30, or 40 bytes to put in some cool looking thing was like, man you just don't have it. Well all I can say is stay tuned. I'll have to get back to you on that. In interview #12, I'll tell you about the Easter eggs. For this interview you don't get the them because there probably isn't any. Ask John Hall, maybe he's got some. I'll tell you though it smelled like old Easter eggs around there in that room a lot.

Jeff: Are you still in touch with John Hall?

Gerry: Well like I said I saw him a few years ago accidentally. He's probably around, but no I haven't seen him.

Jeff: What about the Mouse?

Gerry: Last I heard he was up in Seattle.

Jeff: What do you think of today's games, compared with the ones you were associated with?

Gerry: I think they make our games look like a joke.

Jeff: What about originality? Many of today's games lack any kind of original ideas, except a few, that the early classic games had.

Gerry: Well, Zelda and Street Fighter II, those games are pretty cool. Originality yeah. I remember when I first saw Donkey Kong in the arcades. That was original. That went from where you had shoot-em up games to this completely nutty, out there concept.

Jeff: Do you think there is a chance you guys might get together and do another Vectrex game?

Gerry: Here's the thing. When I got all these and letters from people, they obviously were very interested in anything they could get for the Vectrex.

Jeff: Well there's a lot of people that are still interested in the Vectrex. Not millions or even

thousands, but a small devoted group of Vectrex collectors and players.

Gerry: Not millions. I mean they never sold a million Vectrex machines. Quite a few though right?

Jeff: Oh yes. There has always been a Vectrex cult.

Gerry: You know that's funny, I probably got, just from that magazine, over 100 letters. For a while I went around for months thinking that it would be fun to do a little cartridge even if it didn't do much by way of a game. It would say, "Hey Vectrex memorial cartridge. Thanks for all you guys and gals being interested". Cool ya know, merry Christmas. I thought that would be fun. Maybe have a little game or something in it. But the thing was I didn't have one of those Innersystems machines. Now I just heard a rumor the other day that Mark might actually have one. It would be really easy if we could get our hands on one of those machines. It would be quite simple to take some of the old routines and slap it together. That would be no problem. It might be fun but I'm afraid the results might turn out pretty low res compared to other stuff these days.

Jeff: Oh well, they really don't care about that. They just want Vectrex stuff.

Gerry: Don't forget Steve Marking while I'm dropping names. He got like a six month working vacation in Hong Kong helping set up all the production over there.

Jeff: One of our Vectrex contributors, Al Backiel said one of his user friends noticed a Vectrex being used as a blood pressure tester at a drugstore in Virginia.

Gerry: Really? You mean they managed to program it?

Jeff: I guess so yeah.

Gerry: You know, I always had a number of

people calling me asking if we had an adaptor for a personal computer. They wanted it for instrumentation or something. Maybe somebody came up with that, I didn't. There may have been an article somewhere that told you how to modify your Vectrex, but I never saw it. But the way you worked the thing, it's pretty cloudy. You see it doesn't work on coordinates. It works on just moving a beam of light around. So you never know where the beam is exactly on screen. It's all sort of like guess work and you end up tweaking your routine. We had the scaling built right in as you can see. That's another cool thing it can do. Scaling and rotation, now those are like the latest things in video games. Each generation has better scaling and better rotation. Of course now they have 3-D rotation and stuff. Then soon they're gonna have 3-D shading. It's like the Mouse was, always a couple generations ahead. While we were working on Vectrex, he was spending all his time talking about 3-D graphics routines and he was working for some other company that was using crazed computer graphics. So the Vectrex was like baby stuff to him. But it was a challenge to make it work. It was fun.

After talking to Gerry, it dawned on me what an incredible experience he was part of. Working with some of the first computers, designing the Microvision and the Vectrex during a time when video gaming was fresh. Many of the people who were part of that era like Gerry, were overlooked. Most of the credit was given to the big shots at the top. It's a shame what happened to the Vectrex. Perhaps if it would have been released a year or so earlier, it might have had a bigger impact on the video game community. But even so it still is a unique system with its few but faithful following. If you own a Vectrex then you can appreciate the work Gerry and the others at Western Technologies and GCE did. Lets hope that he will come across a 6809 and possibly produce some copies of Dark Tower or something else for Vectrex owners. I'll keep in touch with him in hopes of him or one of the other Vectrex programmers doing just that. Once again, thanks Gerry!

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Instruction Books \$1.00 each

2600: Air-Sea Battle, Asteroids, Backgammon,

Basketball, Battlezone, Berzerk, Breakout, Centipede, Circus Atari, Dark Chambers, Defender, Demons to Diamonds, Desert Falcon, Dig-Dug, Donkey Kong, Donkey Kong Jr., E.T., Football, Galaxian, Haunted House, Home Run, Joust, Jr. Pac-man, Jungle Hunt, Kangaroo, Krull, Midnight Magic, Millipede, Moon Patrol, Ms. Pac-Man, Night Driver, Outlaw, Peles Championship Soccer, Phoenix, Pole Position, Real Sports: Baseball, Boxing, Football, Tennis, Volleyball, Slot Racers, Solaris, Star Raiders, Starship, Starmaster, Super Breakout, Swordquest: Earthworld, Vanguard, Video Checkers, Video Olympics, Venture, Warlords, Yars Revenge, 3-D Tic-Tac-Toe.

Sears: Baseball, Gunslinger.

CBS: GORF, Omega Race, Wizard of Wor.

Parker Bros.: Frogger, Spiderman.

M-Network: Astroblast, Frogs N Flies, Lock N Chase, Space Attack, Super Challenge Football.

Coleco: Carnival, Venture, Zaxxon.

Imagic: Atlantis, Riddle of the Sphinx, Star Voyager, Trick Shot.

Data Age: Encounter at L-5.

Activision: Boxing, Grand Prix, HERO, Ice Hockey, Kaboom!, Pitfall II, River Raid, Robot Tank, Seaquest, Spider Fighter, Stampede.

Epyx: California Games, Winter Games.

Telesys: Coconuts, Fast Food.

Misc.: Artillery Duel (Xonox), Final Approach (Apollo), Gangster Alley (Spectravision), Sea Hawk (Froggo), Space Jockey, Turmoil (Fox).

Intellivision: Burgertime, Frogger, Lock N Chase, Space Hawk.

5200: Pac-Man, Real Sports Tennis, Star Raiders, Super Breakout.

Atari Force Comics #s 1 & 3. Owner Manuals for 2600, 5200, 7800, and Colecovision.

7800 Instruction Books: Ace of Aces, Planet Smashers, Touchdown Football, Xenophobe.

Please enclose 50 cents per cart for postage.

It might be better to call to see if listed games are available. By mail please list alternatives.

Thank You! Jeff Adkins 11 Windsor Attica N.Y.14011. (716)591-1519 After 5 pm.

WANTED: Fairchild: 19, 23-25, Demo(s), K-1 keyboard cartridge; Bally: Arcade Demo, Conan, Creative Crayon, Z-Grass, Blue Ram, Viper, 3rd party stuff; Vectrex: prototypes, hardware, Animation, Spike; Telestar Arcade: 2, 4+; Odyssey(1): Rules and equipment, cards 11+, and extras; Studio II: Tester I, Baseball, Demo(s), Gunfighter, Speedway, Space War, Fun with Numbers, Biorhythms; 5200: Astrochase, Frogger II, Masterplay 5200 Interface (or other 2600 joystick adaptors), Meteorites; Odyssey 2: Any foreigners not available in U.S.; INTV: Original (big) computer Blockade Runner, Congo Bongo, Tutankham, World Championship Baseball; 7800: Ikari Warrior, Sentinel, Scrapyard Dog, Title Match, Pyromania; Colecovision: Adam add-on, Alcazar, Bumpman, Boulder Dash, Mindmaster, Flipper Slipper, Gust Buster, Illusions, It's Only Rock N Roll, Juke Box, Q\*Bert's Qubes, Super Sketch, Tank War, Video Hustler; Microvision: Alien Raiders, Baseball, Bowling, Connect Four, Cosmic Hunter, Mindbuster, Sea Duel, Shooting Star, Vegas Slots, Arcadia 2001: Funky Fish, Tennis, Ocean Battle Pleiades, Space Vultures; APF MP1000/Imagination Machine, Telstar Game Computer, Entex Select-A-Game and Adventure Vision, Etch-A-Sketch Animator 2000, Gemini, Play Time Projection Systems. Much Else! Russ Perry Jr. 5970 Scott St., Omro WI 54963, (414)685-6187.

### THE VIDEOGAME TRADER

The classified ad source for videogames, computer games, hardware, and various videogaming-related items as well.

VIDEOGAME TRADER  
P.O. BOX N 664  
WESTPORT, MA 02790

Wanted: 2600: A-Team, Dukes of Hazard, Gremlins, Laser Gates, Mr. DO!, Nexar, Q\*Bert's Qubes, Sinistar, Submarine Commander, Subterranea, and others; INTV: Body Slam Wrestling, Fathom, Pro Volleyball,

Frogger II; Colecovision: Dance Fantasy, Linking Logic, Sector Alpha, Skiing, Smurf Paint n' Play, Tournament Tennis; Vectrex: Fortress of Narzod, Polar Rescue, Dark Towers, Pole Position, Star Castle, Overlays for Bedlam, Space Wars, Spike, Spinball, Star Hawk, Web Wars; Atari XL/XE Computer Cartridges: Boulders and Bombs, Crime Fighter, Eagles Nest, Oil's Well, Sky Warriors, Zaxxon, and others. I'd also like for Justin Burch to make good on his rubber check, and Jim Redd to either send me the games he owes me or my original games I sent him, back to me. Have many games for all systems for trade, some for sale. Earl Carsner 738 N. Bermuda St., Mesa AZ. 85205-6112.



**VIDEO MAGIC** ATARI

Atari 5200

Catalog \$1.00

Frank M. Polosky  
P.O. Box 9542  
Pittsburgh, PA 15223

Intellivision  
Colecovision

\* Atari \*  
2600 5200 7800

FOR SALE: Atari 520 w/2 controls, switch box, AC adaptor & 2 games \$35 + \$3.50 S&H. Used 5200 games for sale. Also comics for sale. For a complete list write to Paul George, 250 Touchstone Pl #49, West Sacramento, CA 95691-4607.

### ClassicVideoGames

Games, Hardware, Accessories, & Whatnot!  
Atari 2600, 5200, 7800

ColecoVision  
Intellivision  
Odyssey II

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Beaverton, OR 97006

Phone/Fax: 503-629-9064  
CompuServe: 72142,3717  
AOL: JerryG427

We also buy and trade collectable classic games and hardware.

WANTED: Two Atari joysticks for the Atari 5200. William J. Smith, 3021 Moorcraft Dr. Apt E, Montgomery ALA 36116, (205) 284-6533.

WANTED: For Atari 2600- Ikari Warriors, Smurf, Submarine Commander, Time Pilot, Up N Down, Gremlins; For 5200- Tutankhan, Meteorites, Zone Ranger, Zaxxon, Spitfire; For Lynx- Toki, Pit-Fighter, Power Factor; Systems wanted- Coleco Telstar Arcade.


FOR SALE: Games for ColecoVision, Vectrex, 2600, 7800, Sega Master System. Edward Villapando, 13525 Utica St., Whittier CA 90605.

**WANTED:  
Tapes  
for  
Odyssey 2  
by  
Magnavox**

**Sam  
212-737-1959.**

WANTED: 2600 carts: Halloween, Beamrider, Crypts of Chaos, Quadrun, Gremlins, Wabbit, Up N Down, Custers Revenge, Road Runner, Polaris, Submarine Commander. ColecoVision carts needed: Evolution, Nova Blast, Sammy Lightfoot, Mr. Do's Castle. INTV carts: Tower Of Doom, Dracula, Worm Whomper, Super Cobra. Odyssey 2: Turtles, Pachinko, Killer Bees. Vectrex: Spin Ball, Pole Position. Instructions needed (original or photocopied):

2600: Robin Hood, King Kong, Steeplechase, Subterranea, Atari Video Cube, Escape From the Mindmaster. Coleco: Frogger II, Burgertime. Plus other carts and instructions needed for above systems and other not listed systems. Also need Atari 5200 Console. Ron Milford, 64 B Street, Avenel NJ 07001, (908) 636-6809.



ATARI GAME CARTRIDGES. 2600 & 7800 Atari titles "New in Box"

Ask for ATARI List # 101

★ Frank M. Polosky ★  
PO Box 9542  
Pittsburg, PA 15223

FOR SALE: 2600 systems, accessories and over 120 different carts. ColecoVision systems, accessories and carts. Also INTV, Odyssey 2 systems and carts. Plus 7800 carts and Coleco Telstar Arcade systems and Coleco combat games. Plus photocopied instructions for many 2600, Coleco, INTV, Vectrex and Odyssey 2 carts. Willing to trade. Ron Milford, 64 B Street, Avenel NJ 07001, (908) 636-6809.



# AND FINALLY .....

I'd like to thank my lovely mother Barb and my brilliant father Jim for our recent trip to Las Vegas. We saw most of the sights and sounds along the famous strip. Video Poker and Blackjack machines could be found just about everywhere except in the restrooms. My mother made a new friend, my wife and I somehow ended up locked in a service stairway at our hotel, and I couldn't decide between the Princess at Excalibur or Cleopatra at Caesar's palace as far as beautiful women are concerned. If you want to make a little money, learn how to play the dice and blackjack.

Anybody been wondering about the NAEGE? According to a good source it is now history. A new group of writers from other fanzines and some notable magazines will be joining forces in an up coming video game newsletter. Lets hope that it fares better than the NAEGE, which failed due to lack of support. Some people that I have talked to never even received one issue.

Professor Vid will return in our next issue with another exam or contest so get those pencils sharpened. Word has it we'll be giving away a somewhat hard to find game.

Lastly, I'd like to thank D.B. for all of his time and effort in producing this newsletter. We might not be going on our 18th issue if not for his devotion.

Until next issue . . .

**Happy Gaming!**

CSG Monthly is published 10 times a year. 8 monthly issues plus double summer and holiday issues.

Subscription Rate:

\$16.50	1 year	10 issues
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PRESENT NO. OF SUBSCRIBERS: 161

Published by: Adkins Publishing  
6142 Hoover Road  
Ravenna, OH 44266

Publisher: Elvis Presley  
Editor: Jeff Adkins

Contributing

Writers: Rebecca Cooper  
Russ Perry Jr.

Special Thanks: Gerry Karr

PRINTED BY: THE BIG MAN AT  
VINTAGE PUBLISHING

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