2012 Braumeister Award

RETROCADE MAGAZINE

Volume 1, Issue #2 Spring 2012 — By Classic Gamers For Classic Gamers
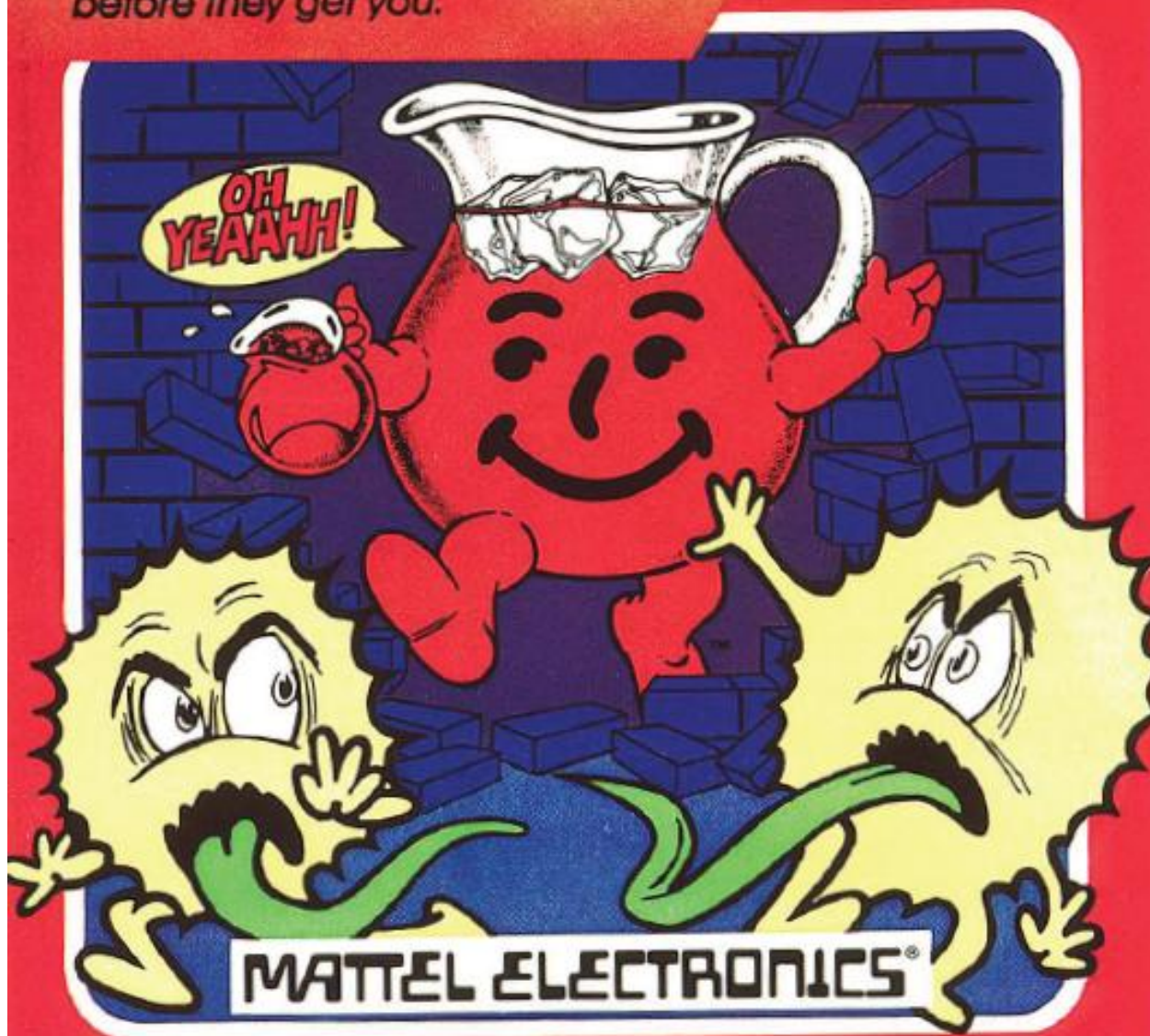
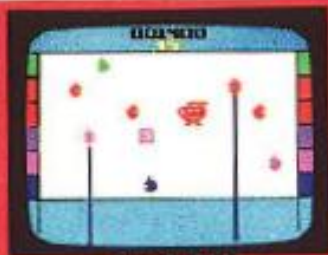PLAZA THEATRE

POLYBIUS
TED DABNEY
MARK ALPIGER

BARCADE
STRATEGY SESSIONS
& MORE!

ATTACK OF THE HOMEBREWS!

Cover Story: Attack of the Homebrews!

A homebrew tsunami hit the classic gaming community in the fourth quarter of 2011. We have some of the hottest titles reviewed and we announce the first Braumeister Award winner for homebrew of the year!

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Retrocade Magazine

INSERT COIN

The Classic Gaming Community

by Rob Maerz

"Community is what it's all about especially since I am also a part of it. It is very important to me to uphold high standards for this community and cultivate a community that I, too, would have wanted to be a part of if I hadn't been the one who created it," Mike Kennedy, founder of GameGavel.com, responded in a 2009 interview to my inquiry of what "community" means to him.

The classic gaming community, as a whole, is made up of several niche communities. Some people are members of one while others may be active in two, more or all groups. For example, you have the classic console gaming community, the arcade gaming community, the pinball community and the arcade video game collector community – there may be others but those are examples of the bigger groups.

Furthermore, you'll find cliques inside the arcade gaming community and inner circles are created to wage wars in the name of discrediting opposing world record scores. And when they have spare time, they'll refer to the console gaming community as "losers" because it is their belief that console gamers are socially inept. Furthermore, their perception is that console gamers sit on their couch half-naked drinking Red Bulls and playing Superman on the Atari 2600.

The classic gaming community is a melting pot of winners, losers, cheaters, critics, skeptics, optimists, pessimists, bullies, whiners, friends and foes. And all these cooks bring their own special ingredients like kindness, anger, love, hatred, envy and jealousy – a recipe for heartburn.

Unfortunately, the volume level of the negative is higher than the volume of positive. After all, they say if the 6 o'clock news was all about good news than nobody would watch it.

It is easy to discourage and not so easy to encourage. Encouragement is not "on" by default and to support someone or something requires effort. And to put forth an effort doesn't always translate into giving someone your money. As a matter of fact, you can do what you do best to raise money for someone less fortunate.

A lot of people were on the sidelines when issue 1 of this magazine was being constructed. Conversely, there have been others who have been of tremendous support at the onset and without them this venture would still be crawling.

This issue of Retrocade Magazine is the result of the collaboration of an International community. Hopefully, you'll enjoy it as much as I do and it is a testament of what community can do when they are constructive and not *destructive*.

Dancing Into the Record Books and for Child's Play

Liz "Kitty McScratch" Bolinger, the world's most prolific dancing game player, will be dancing her way into the **Guinness Book of World Records** while raising money for **Child's Play**. She will be playing **Dance Central 2** on the Xbox 360 Kinect for **24 consecutive hours** at the Green Street Hall Mall in **Ottumwa**, **Iowa** beginning **March 3, 2012**.

"The venue will be open the whole time that I'm going for the record so people can come whenever they want even if it's three in the morning," Bolinger said in a telephone interview. "We're going to have other consoles setup so people can play games when they're there and we're going to be streaming the record attempt as well."

"It definitely makes it more fun to have a charity involved when you do these types of events," explained Bolinger. "Child's Play raises money to get games and toys for kids that are in hospitals. It's really cool and it's something that benefits children in hospitals all around the world."

You can donate directly to Child's Play through the ChipIn! widget on Bolinger's web site at **KittyMcScratch.com**.

Super Cobra

VIDEO GAME CARTRIDGE

Arcade Game Series

A MISSION NEXT TO IMPOSSIBLE.

Your mission is to fly the Super Cobra helicopter, armed with only missiles and bombs, straight through the side of a mountain.

There, the enemy waits with tanks, interceptor missiles, UFO's, meteors and flying space weaponry.

And the farther in you go, the tougher it gets.

Super Cobra. The arcade game that's now a home video game from Parker Brothers. The ones to beat.

Coming Soon!

For your Atari Video Computer System™ and the Sears Video Arcade.™

super Cobra

Arcade Game Series

FOR ATARI & SEARS VIDEO GAME SYSTEMS

PARKER BROTHERS

Letters

Twin Galaxies

Dear Retrocade,

I normally would not write in to a magazine but I just have to say that, although I enjoyed your first edition, I couldn't help but notice it appears a bit "anti-Twin Galaxies". I don't know if that was your intention, or that of your writing staff but the feeling is definitely there. Not that I care either way but I would think with a first edition the last thing you would want to do is step on the toes of a group of people who have done a great deal for the industry.

Anyway, great magazine. I look forward to the next issue.

Heywood J.
Escondido, CA

Two of your articles in the premiere issue seem to be questioning the integrity of the Twin Galaxies scoreboard. Are you guys going to be TG bashers or what?

Jacob S.
Glen Burnie, MD

Ed: We just report the facts. Twin Galaxies stands to benefit from our feedback if they so desire to take it into consideration.

R'cade Mag Print

Dear Retrocade Magazine,

The first issue was a fantastic read. Scoreboards, reviews, event coverage, retro adverts - you've covered it all. My only disappointment is that it is not available as an actual paper magazine. Maybe its my age but probably I'm your target audience and I far prefer to read printed material. Any chance of this happening for future issues?

Keep the good work up!

S. Jones,
Wales, UK

I'm from Australia, and I have purchased the digital version of the magazine. I'm loving it, and would love a printed copy to add my collection and to be able to read anywhere. I'm wondering if a printed version is available, and how much it would be for a copy of issue 1 and issue 2 if it's going to be released soon

Thank you

Hunter M.

I'm about to purchase the digial copy of "Issue #1". I am extremely interested in a PRINT version of this magazine, and will be happy to subscribe to either a print (preferred) or a digital version of this publication!

Thank you,

Greg D.

How do you order the Print Version? I am very excited about this magazine.

Nick

Print it! I'd buy a yearly subscription!

Donny W.

Please let me know when the print mag is for sale. I will buy it for sure!!!

Tom M.

Ed: We hear each and every one of you. A print edition is at the forefront of our priorities. Stay tuned and thank you much for the support!

Send your questions, comments and concerns to Retrocade Magazine and we'll address them in the next issue:

contact@retrocademagazine.com

Don't worry we won't publish your email address!

We Goofed!

Well, it happens to the best of us: we managed to publish the incorrect link to our forums.

The *correct* URL is:
RetrocadeMagazine.com/forums.htm

Destroying the Ring$

On January 2, 2012, **Rob Maerz** made history by becoming the first player to score **over 1 million** points on **Star Castle** for the Vectrex. You can view his archived live stream from Retrocade Magazine's UStream channel at

UStream.tv/channel/the-retrocade

Top Star Castle scores on the Retroboards:

1,005,310 Rob Maerz

460,880 Brandon Ross

99,990 Dave McCooey

Top Star Castle scores on Vectrex.co.uk:

1,005,310 rmaerz

800,000 Daowulf

460,880 Future Primitive

The King of 3, **George Riley**, has been tearing it up! Here are George's notable Donkey Kong 3 scores since he purchased his arcade cabinet on May 21, 2010 (all scores are arcade and marathon settings unless noted):

May 22, 2010   520,300
New World Record (Tournament Settings)

May 27, 2010   2,294,600
AtariAge Memorial Day Tournament

May 28, 2010   2,514,900
AtariAge Memorial Day Tournament

May 28, 2010   2,781,100
AtariAge Memorial Day Tournament (New World Record)

June 9, 2010   3,087,100
New World Record

June 10, 2010   857,200
New World Record (Tournament Settings)

October 24, 2010   2,409,800
AtariAge Halloween Tournament

May 28, 2011   3,676,000
New World Record (MAME)

June 3, 2011   3,538,000
Northwest Pinball and Gameroom Show in Seattle, WA (New World Record)

June 17, 2011   3,417,900
AtariAge Flag Day Tournament

August 9, 2011   819,300
New World Record (MAME Tournament Settings)

August 9, 2011   909,500
New World Record (MAME Tournament Settings)

August 12, 2011   4,561,200
New World Record (MAME)

August 12, 2011   1,066,000
New World Record (MAME Tournament Settings)

August 29, 2011   1,203,500
New World Record (MAME Tournament Settings)

October 16, 2011   1,403,600
New World Record (MAME Tournament Settings)

October 22, 2011   5,273,100
New World Record (MAME)

December 28. 2011   6,167,400
New World Record (MAME)

January 15, 2012   4,252,400
New World Record

CollectorVision

Last issue we covered CollectorVision's port of Mario Bros. and interviewed founder **J-F Dupuis**. Since then, **CollectorVision** has been on a roll with releasing new software for the ColecoVision.

CollectorVision has released the following cartridges since December, 2011:

A.E. (Anti-Environment Encounter)

Armageddon

Bomb 'N Blast

Chack 'n Pop

Ozma Wars

The Way of the Exploding Foot

CollectorVision will also be releasing **Burn Rubber**, **Lock 'n Chase**, **Side Trak** and their "top secret **30**[th] **anniversary project**" in the coming months. Also forthcoming is their **ColecoVision arcade controller**.

TNT Amusements has filmed two 22 minute episodes of a reality show called **High Score**.

You can view their sizzle reels at **http://vimeo.com/highscoretv**

Out of the Box

Rudy Ferretti set the world record on **Gotcha! The Sport** (NES) with a score of **999,990.** He reached the mark without losing a life on October 26, 2011.

Rudy also became the first player to max out **Super Mario Land** (Game Boy) with a score of **999,999** on November 9, 2011.

Computer Space

You can't emulate Computer Space, but you can download a **Computer Space simulator** from Kevin Armstrong's web site at **ComputerSpaceFan.com**

Scoreboards…

278110

STAR CASTLE

© GCE 1983

SOLAR QUEST

Leaderboard
1. 142,750 Dave McCooey 100%
2. 138,900 Ian Nicholson 97.3%
3. 110,500 Jasper Alto 77.41%
4. 106,150 Helmut Mueller 74.36%
5. 103,950 Rob Maerz 72.82%

Tournaments…

ATARI 2600 SIX PACK SERVED UP TOURNAMENT STYLE

STELLA ATARI

STELLA ATARI

OCTOBER 13 - 31, 2011
ONLINE AT

INTERACTIVE
ARCADE
MUSEUM

Presents

RETROCADE MAGAZINE

Arcade Summer Showdown
Live At High Scores Interactive Arcade Museum*
& On the Web at RetrocadeMagazine.com
Sunday, August 7, 2011 • Monday August 22, 2011

Article Previews…

RETROCADE MAGAZINE

THE KING OF 3L
GEORGE RILEY

RetrocadeMagazine.com/forums.htm

RETROCHARTS

Most Popular Coin-Op Video Games

This Issue	Last Issue	Game
1	3	Centipede
2	1	Donkey Kong
3	5	Time Pilot
4	4	Robotron:2084
5	9	Bubble Bobble
6	-	Jr. Pac-Man
7	6	Galaga
8	2	Asteroids
9	-	Joust
10	-	Ms. Pac-Man

Most Popular Video Game Cartridges

This Issue	Last Issue	Game	Platform
1	-	Magical Tree	ColecoVision
2	-	Chack'n Pop	ColecoVision
3	-	Elevator Action	NES
4	4	Squish 'Em Sam	ColecoVision
5	2	Galaxian	ColecoVision
6	1	SubRoc	ColecoVision
7	-	Vector Pilot	Vectrex
8	-	Ozma Wars	ColecoVision
9	-	Pitfall!	Atari 2600
10	-	After Burner	Master System

Source: Retrocade Magazine Popularity Charts Survey at RetrocadeMagazine.com

RETROBOARDS

Atari 2600

Adventures of Tron
Difficulty: B
69,800 Christian Keilback
69,600 James Randall

Alien
Difficulty: Left B / Right B
62,758 James Randall
34,345 Rob Maerz

Amidar
Difficulty: A
104,159 A. Peter Mee
104,124 Virender Dayal
  8,413 James Randall
  5,955 Rob Maerz
  5,417 Christian Keilback
  5,277 Mattias Stjernefeldt
  3,876 Brandon LeCroy
  2,642 Ed Kelly

Asteroids
Game 4
Difficulty: A
17,510 Rob Maerz

Asteroids
Game: 6
Difficulty: A
17,280 Rob Maerz

Bank Heist
Difficulty: Left B / Right B
199,978 James Randall
  38,043 Ed Kelly

Barnstorming
Game 1
32.90 James Randall

Basketball
Game 2
Left/Right Difficulty: Player's choice (controls speed of players)
30 (62) James Randall
 6 (48) Rob Maerz

Battlezone
Game 1
425,000 Chuck Ostrowski
 83,000 Nick Reymann
 81,000 James Randall
 57,000 Rob Maerz

Bermuda Triangle
Game 1
Difficulty: B
105,850 James Randall

Berzerk
Game 3
228,840 Christian Keilback
 18,530 James Randall
  7,280 Rob Maerz
  6,230 Ed Kelly

Bouncin' Baby Bunnies
Game 1
236 James Randall

BurgerTime
38,450 James Randall
14,500 Rob Maerz

Centipede
Standard
166,539 Virender Dayal
145,542 Brandon LeCroy
133,568 A. Peter Mee
 83,983 Mattias Stjernefeldt
 77,147 Michael Allard
 66,062 James Randall
 58,232 Ed Kelly
 57,200 Rob Maerz
 45,043 Nick Reymann
 34,062 Christian Keilback

Communist Mutants
Level 1
Difficulty: B
197,330 James Randall
 22,120 Ed Kelly

Cosmic Ark
Game 1
26,470 Christian Keilback
22,980 James Randall
18,020 Paul Zimmerman
14,000 Brandon LeCroy
10,890 Rob Maerz
 7,970 Virender Dayal

Cosmic Commuter
Level 1
508,851 James Randall

Crackpots
267,050 Christian Keilback
82,380 James Randall

Crossbow
Level 1
Left Difficulty: Player's choice (controls speed of shots)
897,850 James Randall
342,500 Mattias Stjernefeldt

Crystal Castles
Difficulty: B
123,057 James Randall
13,239 Rob Maerz

Dark Cavern
Difficulty: B
319,000 James Randall
 67,000 Rob Maerz
 57,000 Ed Kelly

Death Trap
Easy
32,820 James Randall

Demon Attack
Game 1
Difficulty: B
432,485 James Randall
 9,790 Mattias Stjernefeldt
 8,630 Rob Maerz

Demons to Diamonds
Game 1
9,501 Paul Zimmerman
1,937 Rob Maerz

Donkey Kong
139,800 James Randall
 69,700 Rob Maerz
 67,900 Mattias Stjernefeldt

Donkey Kong Junior

Difficulty 1

950,600 James Randall

Double Dragon

Game 1

80,890 James Randall

Dragonfire

Game 1

68,130 James Randall

Dragster

Game 1

5.71 A. Peter Mee

5.77 Dean Hagerman

5.84 James Randall

The Earth Dies Screaming

35,425 James Randall

Encounter At L5

Game 1

Difficulty: Left B / Right B

4,719 James Randall

Enduro

2187.9 Christian Keilback

1894.9 Chuck Ostrowski

1733.7 James Randall

1157.0 Virender Dayal

1155.1 Brandon LeCroy

1041.4 Mattias Stjernefeldt

  664.6 A. Peter Mee

  582.6 Rob Maerz

  557.6 Ed Kelly

Escape From the Mindmaster

552 James Randall

Fast Food

13,484 James Randall

Fathom

20,662 James Randall

Flash Gordon

343,385 James Randall

Frankenstein's Monster

Difficulty: B

1,840 Christian Keilback

  900 James Randall

Freeway

Game 1

Difficulty: B

38 Marc Cohen

37 Dean Hagerman

36 A. Peter Mee

34 James Randall

32 Mattias Stjernefeldt

32 Rob Maerz

28 Ed Kelly

Frogger (Official)

Difficulty: B

33,710 Christian Keilback

16,410 James Randall

10,750 Ed Kelly

Frogger (Parker Bros.)

Game 1

Difficulty: B

3,572 Christian Keilback

2,485 Virender Dayal

1,982 James Randall

1,771 Rob Maerz

Galaxian

Game: 1

Difficulty: B

226,820 George Riley

  90,470 James Randall

  27,350 Rob Maerz

Gas Hog

23,420 James Randall

Gorf

Game: 1

Difficulty: B

20,000 James Randall

12,900 Rob Maerz

Grand Prix

Game 1

29.73 James Randall

50.08 Rob Maerz

Gyruss

Game 1

357,100 James Randall

H.E.R.O.

Game 1

171,425 James Randall

Indy 500

Game 6

Difficulty: B

43 James Randall

33 Rob Maerz

Indy 500

Game 8

Difficulty: B

50 James Randall

38 Rob Maerz

Infiltrate

Game 1

Difficulty: B

116,675 James Randall

James Bond 007

Game: Novice

16,500 James Randall

Joust

Skill: Skilled

274,650 Mattias Stjernefeldt

196,200 James Randall

143,850 Nick Reymann

Jr. Pac-Man

Toy Candy With 4 Ghosts

58,160 Christian Keilback

57,360 James Randall

28,880 Rob Maerz

Jungle Hunt

Skill Level 1

50,560 Virender Dayal

39,840 James Randall

37,430 Brandon LeCroy

33,630 Mattias Stjernefeldt

22,620 Christian Keilback

21,110 A. Peter Mee

  6,950 Ed Kelly

  6,050 Rob Maerz

Juno First

229,400 James Randall

  63,200 Rob Maerz

Kaboom!

Game 1

Difficulty: B

50,755 Chuck Ostrowski

16,572 James Randall

Kool-Aid Man

Difficulty: Right B

85,600 James Randall

24,300 Rob Maerz

Kung Fu Master

Game 1

71,500 James Randall

18,000 Mattias Stjernefeldt

Lady Bug

Novice

419,040 James Randall

172,590 Rob Maerz

Laser Gates

70,701 Mattias Stjernefeldt

69,016 James Randall

Lock N Chase

Difficulty: B

34,280 James Randall

25,300 Rob Maerz

Lost Luggage

Game 1

Difficulty: B

609,300 James Randall

182,111 Christian Keilback

Mr. Do!

Game 1

Difficulty: B

45,950 James Randall

Mr. Do's Castle

33,280 James Randall

Ms. Pac-Man

Level: Cherries

219,250 Marc Cohen

110,770 Virender Dayal

106,530 James Randall

103,740 Michael Allard

80,640 Brandon LeCroy

78,910 Rob Maerz

77,420 Christian Keilback

63,340 A. Peter Mee

62,230 Ed Kelly

62,110 Mattias Stjernefeldt

Midnight Magic

Difficulty: B

654,570 Nick Reymann

126,860 James Randall

44,930 Rob Maerz

Missile Command

Game: 3

Difficulty: B

48,530 Nick Reymann

Moon Patrol

Game 1

Difficulty: B

35,460 James Randall

35,340 Virender Dayal

28,680 Christian Keilback

13,550 Mattias Stjernefeldt

9,750 Ed Kelly

5,300 Rob Maerz

Mountain King

Skill 1

321,720 James Randall

No Escape!

Game 1

Difficulty: B

6,783 James Randall

Oink!

Game 1

Difficulty: B

63,072 James Randall

Omega Race

68,500 Christian Keilback

68,000 James Randall

61,500 Chuck Ostrowski

57,000 Rob Maerz

48,500 Ed Kelly

Pac-Man Arcade

Level: Cherry

136,200 James Randall

80,520 Rob Maerz

Pengo

Round 1

311,310 James Randall

39,830 Chuck Ostrowski

Phoenix

685,950 James Randall

274,340 Chuck Ostrowski

144,820 Nick Reymann

44,670 Rob Maerz

Pitfall!

114,000 Marc Cohen

109,795 James Randall

Planet Patrol

Game 1

18,880 James Randall

4,460 Rob Maerz

Plaque Attack

Game 3

Difficulty: B/B

19,805 James Randall

Polaris

Game 1

40,200 James Randall

20,400 Mattias Stjernefeldt

Pooyan

Game 1

2,665 James Randall

1,780 Rob Maerz

Popeye

63,000 James Randall

Pressure Cooker

Game 1

296,845 James Randall

Quadrun

184,870 Christian Keilback

Rabbit Transit

Difficulty: B

26,323 James Randall

Racer

Game 1

Difficulty: A (no oil slicks)

183 James Randall

96 Rob Maerz

Radar Lock

59,534 James Randall

Ram It

Game 3

60,530 James Randall

Reactor

Game 1

Difficulty: A or B (sets ship speed)

325,082 James Randall

93,044 Rob Maerz

River Raid

Game 1

Difficulty: B

252,770 James Randall

River Raid II

653,850 James Randall

Road Runner

137,900 James Randall

114,400 Mattias Stjernefeldt

Robot Tank

68 Chuck Ostrowski

62 James Randall

Roc 'N Rope

Game 1

Skill 1

59,300 James Randall

Shark Attack

Game 1

Difficulty: B

156 James Randall

Sinistar

563,445 Rob Maerz

Skate Boardin'

0 obs, 2:30 James Randall

Skiing

Game 1

32.78 James Randall

Sky Diver
Game 1
Difficulty: B
97 James Randall
79 Rob Maerz

Sky Jinks
Game 1
Difficulty: B
34.88 James Randall

Solaris
105,400 Chuck Ostrowski
88,720 Christian Keilback
79,300 Brandon LeCroy
57,840 A. Peter Mee
27,200 James Randall
26,720 Rob Maerz
13,920 Ed Kelly

Spider-Man
39,280 James Randall

Spike's Peak
Left Difficulty: B
Right Difficulty: B
99,750 James Randall

Spy Hunter
Difficulty: B
184,150 James Randall

Stampede
Game 1
Difficulty: B
8,756 James Randall

Star Trek
483,500 James Randall
412,900 Ed Kelly

Star Wars: Death Star Battle
Game 1
Difficulty: Left B / Right B
43,667 James Randall
34,680 Rob Maerz

Stargate
263,750 James Randall
65,200 Nick Reymann
57,850 Chuck Ostrowski
56,900 Ed Kelly
50,650 Christian Keilback
49,700 Mattias Stjernefeldt
44,100 Rob Maerz
37,150 A. Peter Mee

Starmaster
Level: Starmaster
9,283 James Randall

Sub-Scan
11,080 Rob Maerz
6,260 James Randall

Subterranea
Skill Level 1 (standard)
22,898 James Randall

Suicide Mission
Easy
Difficulty: B
113,670 James Randall
61,700 Ed Kelly

Super Cobra
Slow Speed
33,180 Brandon LeCroy
31,090 A. Peter Mee
25,160 Christian Keilback
24,960 Rob Maerz
24,210 James Randall
19,490 Mattias Stjernefeldt
18,310 Ed Kelly

Superman
Difficulty: Left B / Right B
348 Rob Maerz

Tac/Scan
Game 1
Difficulty: B
339,500 Paul Zimmerman
318,800 James Randall
284,300 Christian Keilback
178,300 Rob Maerz

Tapper
Difficulty: Left - A / Right - B
127,425 Christian Keilback
90,825 James Randall

Threshold
Game 3
Difficulty: B
45,210 James Randall
19,640 Mattias Stjernefeldt

Time Pilot
Game 1
Difficulty: B
51,000 James Randall
20,000 Ed Kelly

Tron: Deadly Discs
Difficulty: B
102,505 Paul Zimmerman
97,685 Brandon LeCroy
79,285 Christian Keilback
61,795 James Randall
55,175 Rob Maerz
44,965 Virender Dayal

Tunnel Runner
Game 1
21,308 Christian Keilback
7,557 James Randall

Turbo
Enhanced Prototype
14,249 James Randall

Tutankham
Game 1
3,618 James Randall
430 Rob Maerz

Venture
Skill 1
Difficulty: Left - B / Right - B
13,000 Virender Dayal
12,700 Christian Keilback
11,300 James Randall
5,200 Ed Kelly
1,900 Nick Reymann
1,200 Rob Maerz

Wizard of Wor
Left/Right Difficulty: B
95,300 James Randall

Zaxxon
Skill 1
Difficulty: Left - B / Right - B
43,600 George Riley
41,600 Ed Kelly
30,200 James Randall
26,500 Christian Keilback

Atari 5200

Beamrider
Level 1
39,100 James Nguyen

Berzerk
Game 1
10,730 Virender Dayal
6,000 Dean Hagerman
4,590 Rob Maerz

Buck Rogers
104,265 Rob Maerz

Centipede
Easy
41,377 Virender Dayal
35,038 Michael Allard

Countermeasure
116,450 Brandon LeCroy

Defender
Easy
172,200 James Nguyen
134,725 Rob Maerz

Frogger
Fast
11,825 Virender Dayal
11,545 Chuck Ostrowski

Frogger II: Threeedeep
Level 1
65,599 Virender Dayal

Galaxian
Level 0 (Novice)
30,440 Chuck Ostrowski
15,130 Rob Maerz

Galaxian
Level 9 (Very Difficult)
14,210 Michael Allard
11,300 Chuck Ostrowski

Gyruss
274,150 Virender Dayal
49,050 Chuck Ostrowski

H.E.R.O.
Level 1
133,780 Virender Dayal

Jungle Hunt
Beginner
19,540 Virender Dayal

Kaboom!
Game 1
Large Bucket
26,958 Chuck Ostrowski

Mario Bros.
1 Player
152,100 Chuck Ostrowski
105,510 Virender Dayal
44,410 Rob Maerz

Meteorites
8,300 Virender Dayal

Miner 2049er
Level: 1
159,580 Virender Dayal

Missile Command
Wave 1
199,245 Chuck Ostrowski
118,155 Virender Dayal
56,345 Rob Maerz

Moon Patrol
Beginner
48,900 Virender Dayal
27,200 Chuck Ostrowski
20,000 James Nguyen

Ms. Pac-Man
Cherry
117,460 Virender Dayal
26,420 Chuck Ostrowski

Pac-Man
Cherry
725,680 Dean Hagerman
114,270 Virender Dayal
32,180 Chuck Ostrowski

Pole Position
Malibu Grand Prix
Laps: 4
60,950 Virender Dayal
60,750 Chuck Ostrowski
54,600 Rob Maerz

Popeye
120,990 Virender Dayal

Q*bert
44,645 Virender Dayal
27,965 Michael Allard

Qix
Advanced
87,228 Michael Allard

River Raid
Level 1
85,420 Chuck Ostrowski

Robotron: 2084
Level 0
567,750 Dean Hagerman
551,775 Virender Dayal

Space Invaders
Game 1 (slow bombs, 5 lives)
41,363 Chuck Ostrowski

Space Invaders
Game 12 (fast bombs, home-in, 3 lives)
2,326 Virender Dayal
1,776 Chuck Ostrowski

Super Cobra
27,350 Chuck Ostrowski

Wizard of Wor
1 Player
7 Lives
31,500 Virender Dayal
20,700 Rob Maerz

Atari 7800
Crazy Brix
Skill level: Normal
107,070 Rob Maerz

Donkey Kong
Standard
50,700 Rob Maerz

Donkey Kong Junior
Standard
5,300 Rob Maerz

Food Fight
Beginner
Level 1
302,100 Chuck Ostrowski
263,300 Rob Maerz

Galaga
Advanced
224,790 Brandon LeCroy
145,590 Rob Maerz

Jr. Pac-Man
Lives: 5
Speed: Fast
Level: Bicycle
98,250 Rob Maerz

Mario Bros.
Standard
58,480 Rob Maerz
39,440 Chuck Ostrowski

Ms. Pac-Man
Cherry Level
81,190 Virender Dayal
44,870 Rob Maerz
39,800 Chuck Ostrowski

PMC Pac-Man
Plus Mode: Off
Fast Mode: On
Lives: 5
Level: Cherry
85,420 Rob Maerz

PMC Pac-Man Plus
Plus Mode: On
Fast Mode: On
Lives: 5
Level: Cherry
35,020 Rob Maerz

Pole Position II
Fuji
72,850 Virender Dayal
70,050 Nick Reymann
41,650 Rob Maerz

Pole Position II
Seaside
65,450 Nick Reymann

Pole Position II
Suzuka
32,870 Virender Dayal
31,220 Nick Reymann

Pole Position II
Test Track
74,750 Nick Reymann
74,750 Virender Dayal
74,350 Rob Maerz
74,350 Austin Mackert

Scramble
Difficulty: Normal
34,230 Rob Maerz

Xevious
Novice
83,760 Austin Mackert

Atari 8-bit
Asteroids
112,890 Virender Dayal
 18,520 Rob Maerz

Centipede
148,194 Virender Dayal
 49,349 Rob Maerz

Donkey Kong
Hammer Level
175,200 Virender Dayal

Frogger (Parker Bros.)
Fast
12,555 Virender Dayal

Frogger II: Threeedeep
Level 1
72,127 Virender Dayal

HERO
Level 1
106,125 Virender Dayal

Jungle Hunt
Beginner
33,210 Virender Dayal

K-razy Shoot-out
17,030 Virender Dayal
13,020 Chuck Ostrowski

Kaboom
Large Bucket
53,604 Chuck Ostrowski

Kaboom
Small Bucket
4,468 Chuck Ostrowski

Miner 2049er
274,880 Virender Dayal
251,615 Eric Liddell
 67,625 Nick Reymann

Missile Command
Skip 0
Bonus
127,165 Chuck Ostrowski

Ms. Pac-Man
Cherry
126,050 Virender Dayal

Oil's Well
Regular
168,720 Virender Dayal

Pac-Man
Cherry
251,660 Virender Dayal

Preppie II
52,650 Virender Dayal

Robotron:2084
Level 0
477,200 Virender Dayal
194,225 Chuck Ostrowski

Wizard of Wor
Lives: 7
35,100 Virender Dayal
28,000 Chuck Ostrowski

ColecoVision
Astro Invader
7,070 Rob Maerz

B.C.'s Quest For Tires
Skill 1
22,270 Ed Kelly

Bank Panic
128,650 Rob Maerz

Beamrider
Level 1
14,770 Rob Maerz

Buck Rogers
Game: Skill 1
98,150 Ed Kelly
23,134 Rob Maerz

Bump 'N' Jump
Skill 1
186,720 Ed Kelly
160,256 Pat Belair
 60,636 Rob Maerz

Burger Time
Game: Skill 1
51,000 Ed Kelly
27,450 Rob Maerz

Cabbage Patch Kids Adventures In the Park
22,300 Rob Maerz

Carnival
Skill 1
36,520 Rob Maerz

Centipede
Game: Easy
87,563 Ed Kelly
59,131 Rob Maerz

Chack'n Pop
36,700 Rob Maerz

Chuck Norris Superkicks
194,300 Ed Kelly

Congo Bongo
Skill 1
17,730 Rob Maerz
 7,470 Ed Kelly

Cosmic Avenger
Game: Skill 1
49,840 Ed Kelly
38,610 Rob Maerz
 4,490 Arik Maerz

Defender
114,800 Ed Kelly

Destructor
Skill 1
48,620 Rob Maerz

Donkey Kong Junior
Game: Skill 1
113,900 Ed Kelly
 19,300 Rob Maerz
 13,100 Arik Maerz

Dragonfire
Skill 1
12,600 Ed Kelly

The Dukes of Hazzard
Skill 1
48,470 Ed Kelly

Flipper Slipper
Skill 1
19,010 Ed Kelly

Frantic Freddy
Skill 1
23,430 Rob Maerz

Frenzy
Skill 1
20,518 Ed Kelly
12,857 Rob Maerz

Frogger
Fast
20,420 Virender Dayal
17,110 Ed Kelly
13,340 Rob Maerz

Front Line
Skill 1
30,600 Ed Kelly

Galaxian
Game: Novice
36,790 David Smith
36,070 Ed Kelly
36,030 Rob Maerz

Gorf
Skill 1
25,590 Rob Maerz
18,210 Ed Kelly

Gyruss
Game: Skill 1
260,600 Virender Dayal
229,200 Pat Belair
82,700 Rob Maerz
77,900 Ed Kelly

H.E.R.O.
156,085 Virender Dayal
129,950 Pat Belair
36,295 Ed Kelly
33,405 Rob Maerz

Jumpman Junior
Speed: Player's choice
10,375 Ed Kelly
8,200 Rob Maerz

Jungle Hunt
Easy
24,030 Rob Maerz
18,540 Ed Kelly

Looping
Skill 1
209,175 Ed Kelly
38,140 Michael Allard
17,720 Rob Maerz

Magical Tree
229,900 Rob Maerz
77,000 Franka Maerz

Mario Bros.
88,060 Ed Kelly
85,830 Rob Maerz

Miner 2049er
Game: Skill 1
7,370 Rob Maerz

Mr. Do!'s Castle
Game: Skill 1
22,380 Ed Kelly

Ms. Pac-Man
Lives: 5
Bonus: 10,000
Difficulty: Normal
66,660 Rob Maerz

Nova Blast
Cadet
48,300 Ed Kelly
21,100 Rob Maerz

Oil's Well
Regular
39,860 Rob Maerz
35,110 Ed Kelly

Omega Race
Skill 1
184,000 Rob Maerz

Ozma Wars
Skill 1
6,920 Rob Maerz

Pac-Man
Lives: 5
Bonus: 10,000
Difficulty: Normal
23,350 Ed Kelly

Pac-Man Plus
Lives: 5
Bonus: 10,000
Difficulty: Normal
44,750 Rob Maerz
17,320 Ed Kelly

Popeye
Game 1
135,600 Virender Dayal
117,870 Ed Kelly
104,390 Pat Belair
32,080 Rob Maerz

Q*bert
Game: Skill 1
996,080 Pat Belair
137,710 Virender Dayal
48,405 Michael Allard
19,370 Ed Kelly
16,355 Rob Maerz

Q*bert's Qubes
Skill 1
168,140 Ed Kelly

River Raid
Game 1
21,390 Ed Kelly
13,460 Rob Maerz

Road Fighter
Stage A
33,025 Rob Maerz

Roc'N Rope
Skill 1
50,200 Ed Kelly
39,840 Rob Maerz

Sky Jaguar
65,140 Ed Kelly
23,510 Rob Maerz

Slurpy
32,135 Ed Kelly

Space Fury
Skill 1
388,260 Rob Maerz
354,540 Ed Kelly
311,350 Michael Allard
35,310 Pat Belair

Space Panic
Game: Skill 1
10,030 Rob Maerz

Spectron
Game: Skill 1
5,690 Rob Maerz
3,570 Ed Kelly

Spy Hunter
Skill 1
232,955 Ed Kelly
50,970 Rob Maerz

Squish Em Sam
Game: Level 1
108,320 Rob Maerz
32,710 Ed Kelly

Star Force
308,700 Rob Maerz

Star Trek
Skill 1
331,075 Ed Kelly

Star Wars

5,289,213 Ed Kelly

  111,652 Pat Belair

SubRoc

Skill 1

447,400 Ed Kelly

270,900 Rob Maerz

209,400 Pat Belair

Tapper

Game: Skill 1

176,925 Rob Maerz

Tarzan

Skill 1

42,500 Ed Kelly

Time Pilot

Skill 1

168,600 Ed Kelly

128,900 Pat Belair

106,900 Rob Maerz

  59,200 Michael Allard

Turbo

Skill 1

172,032 Ed Kelly

  93,166 Rob Maerz

Venture

Skill 1

999,800 Virender Dayal

938,200 Pat Belair

922,700 Ed Kelly

518,400 Rob Maerz

258,700 Michael Allard

Victory

Skill 1

55,400 Rob Maerz

War Games

Skill 3

217,160,000 Ed Kelly

War Games

Skill 6

388,250,000 Ed Kelly

War Games

Skill 7

140,860,000 Ed Kelly

War Games

Skill 8

108,650,000 Ed Kelly

Wing War

100,675 Ed Kelly

Yie Ar Kung-Fu

Famicom Version

102,100 Ed Kelly

Zaxxon

Skill 1

99,600 Virender Dayal

99,400 Ed Kelly

77,000 Pat Belair

66,700 Michael Allard

25,900 Rob Maerz

  5,200 Arik Maerz

Commodore 64

Battlezone

60,000 Chuck Ostrowski

34,000 Rob Maerz

Buck Rogers

45,200 Rob Maerz

Centipede

35,648 Rob Maerz

Clowns

17,670 Mattias Stjernefeldt

14,030 Chuck Ostrowski

  4,690 Rob Maerz

Frogger

Speed: Fast

8,690 Rob Maerz

Galaxian

Level: 1

13,300 Rob Maerz

Jupiter Lander

17,000 Brandon LeCroy

Ms. Pac-Man

Level: Cherry

24,590 Rob Maerz

Omega Race

107,150 Rob Maerz

  87,200 Chuck Ostrowski

Pinball Spectacular

47,890 Rob Maerz

20,450 Brandon LeCroy

Popeye

22,980 Rob Maerz

Wizard of Wor

1 Player Only (Yellow Player)

186,900 Brandon LeCroy

  43,700 Rob Maerz

Daphne

Astron Belt

Play Timer: 60 seconds

Difficulty: Normal

Reserve Ships Score: 5k, 10k, 20k

28,930 Rob Maerz

Galaxy Ranger

Game Version: Hitachi

Play Timer: 60 Seconds

Difficulty: Normal

Reserve Ships Score: 5k, 10k, 20k

14,170 Rob Maerz

Us vs Them

Difficulty: Normal

35,800 Rob Maerz

Intellivision

Astrosmash

Peak Score

756,410 Chuck Ostrowski

206,255 Rob Maerz

104,100 Ed Kelly

Atlantis

Easy

34,680 Ed Kelly

Auto Racing

Course 1

3:32 Ed Kelly

4:29 Michael Allard

Bump 'N' Jump

31,234 Ed Kelly

BurgerTime

Speed: Medium

85,050 Chuck Ostrowski

29,900 Ed Kelly

27,700 Rob Maerz

Carnival

Level 1

7,820 Ed Kelly

Centipede

43,758 Ed Kelly

Chip Shot Super Pro Golf

INTV Tourney

18 Holes

77 Ed Kelly

Commando

Skill Level: Regular

78,500 Ed Kelly

Defender

48,125 Ed Kelly

Demon Attack

Game 1

9,381 Ed Kelly

Diner
Level 1
416,950 Ed Kelly

Donkey Kong
Skill 1
155,600 Ed Kelly
112,900 Dean Hagerman

Donkey Kong Junior
Skill 1
53,500 Ed Kelly

Dracula
Skill Level: Easy
23,225 Ed Kelly
  8,725 Dean Hagerman

Dragonfire
Easy
2,970 Ed Kelly

Lady Bug
Skill 1
55,130 Ed Kelly

Lock 'N' Chase
Speed: Fastest
36,260 Michael Allard
13,440 Rob Maerz

Mouse Trap
Skill 1
219,900 Ed Kelly

Nova Blast
Cadet
49,500 Ed Kelly

Pac-Man
39,540 Ed Kelly
24,350 Dean Hagerman

PGA Golf
56 Ed Kelly

Popeye
Level 1
67,100 Ed Kelly

River Raid
Bridge 1
15,790 Ed Kelly

Shark! Shark!
Normal
94,150 Dean Hagerman

Space Armada
131,330 Ed Kelly

Space Patrol
Moon
678,750 Ed Kelly

Super Cobra
Level 1
22,248 Ed Kelly

Tron: Deadly Discs
Speed: Fastest
2,043,000 Dean Hagerman
    21,250 Ed Kelly

Turbo
Skill 1
108,068 Ed Kelly

Zaxxon
Skill 1
33,400 Ed Kelly

Master System

After Burner
3,319,800 Chuck Ostrowski
241,900 Rob Maerz

Choplifter
92,400 Chuck Ostrowski

Columns
37,980 Chuck Ostrowski

Hang On
Level: Player's choice
3,913,490 Chuck Ostrowski
    298,590 Rob Maerz

Out Run
12,163,660 Dean Hagerman
  8,419,800 Chuck Ostrowski
  2,375,460 Rob Maerz

Safari Hunt
1,143,900 Chuck Ostrowski
    51,600 Rob Maerz

Shinobi
432,500 John Pompa
221,700 Dean Hagerman
160,550 Chuck Ostrowski

Zaxxon 3D
36,300 Chuck Ostrowski

NES

10-Yard Fight
1 Player Only
Opponent Skill Level: player's choice
14 (21) Rob Maerz

1942
477,350 Mike Bailey

Burger Time
419,900 Eric Cummings
104,050 Dean Hagerman

City Connection
135,300 Dean Hagerman

Defender II
Game A
119,100 Dean Hagerman
  31,800 Rob Maerz

Donkey Kong
Game A
210,300 Dean Hagerman
154,500 Nick Reymann
  45,500 Rob Maerz

Donkey Kong 3
Game A
829,400 Dean Hagerman
167,500 Mason Cramer
  86,200 Rob Maerz

Donkey Kong Junior
Game A
639,700 Mason Cramer
168,600 Dean Hagerman
139,500 Nick Reymann

Dr. Mario
Virus Level: Any
Speed: HI
189,900 Mike Bailey

Elevator Action
24,850 Rob Maerz

Galaga
231,400 Austin Mackert
128,270 Rob Maerz

Joust
Game A
130,000 Mason Cramer

Marble Madness
88,400 Mason Cramer

Mario Bros.
Game A
110,380 Rob Maerz

Millipede
Game A
999,935 Mason Cramer
120,066 Rob Maerz

Ms. Pac-Man [TENGEN]

Arcade

123,110 Mason Cramer

39,050 Danny Scalero

27,250 Rob Maerz

Pac-Man

151,330 Mason Cramer

33,550 Dean Hagerman

32,920 Rob Maerz

Pinball

Game A

138,870 Michael Allard

Popeye

Game A

30,730 Rob Maerz

R.C. Pro-Am

119,387 Brandon LeCroy

91,768 Dean Hagerman

Rad Racer

66,499 Dean Hagerman

Rollerball

Skyscraper

1 Player

351,870 Nick Reymann

Tetris [Nintendo]

A-Type

Level 0

984,482 Ben Mullen

122,488 Brandon LeCroy

54,525 Dean Hagerman

18,918 Rob Maerz

Tetris [Nintendo]

B-Type

Level 0

167,980 Ben Mullen

Tetris 2

Speed and Level: player's choice

248,800 John A Pompa

205,190 Dean Hagerman

Odyssey 2

Atlantis

Easy

96,000 James Randall

Attack Of the Timelord

787 James Randall

422 Ed Kelly

Demon Attack

Game 0 or Game 2

14,945 James Randall

Killer Bees!

8,929 James Randall

Speedway

Qualifying Time Trials

Skill 1

2,391 James Randall

Super Cobra

74 James Randall

UFO

173 Ed Kelly

61 James Randall

Vectrex

Armor Attack

Game 1

106,200 Ian Nicholson

51,800 Helmut Mueller

32,000 Dave McCooey

31,300 Rob Maerz

29,400 Jasper Alto

Rip Off

Game 1

4,480 Dave McCooey

4,450 Helmut Mueller

4,320 Jasper Alto

3,180 Ian Nicholson

2,280 Rob Maerz

Scramble

Game 1

66,140 Helmut Mueller

37,900 Ian Nicholson

35,670 Jasper Alto

31,480 Dave McCooey

29,230 Rob Maerz

Solar Quest

142,750 Dave McCooey

138,900 Ian Nicholson

110,500 Jasper Alto

106,150 Helmut Mueller

103,950 Rob Maerz

Space Frenzy

11,320 Rob Maerz

Star Castle

Game 1

1,005,310 Rob Maerz

460,880 Brandon Ross

99,990 Dave McCooey

35,200 Jasper Alto

21,980 Helmut Mueller

8,610 Ian Nicholson

Vector Pilot

Easy

118,300 Rob Maerz

Web Wars

124,408 Jasper Alto

65,891 Helmut Mueller

65,890 Dave McCooey

22,990 Rob Maerz

STELLA'S SIX PACK

ATARI 2600 SIX PACK SERVED UP TOURNAMENT STYLE

IMPORTED

PREMIUM LAGER

1977

STELLA
ATARI
Sunnyvale

STELLA
ATARI

OCTOBER 13-31, 2011

ONLINE AT

RETROCADEMAGAZINE.COM

STELLA'S SIX PACK FINAL RESULTS

Amidar

104,159	A. Peter Mee
104,124	Virender Dayal
8,413	James Randall
5,417	Christian Keilback
5,277	Mattias Stjernefeldt
4,351	Rob Maerz
3,876	Brandon LeCroy
2,642	Ed Kelly

Centipede

166,539	Virender Dayal
145,542	Brandon LeCroy
133,568	A. Peter Mee
83,983	Mattias Stjernefeldt
58,232	Ed Kelly
56,313	James Randall
49,658	Rob Maerz
34,062	Christian Keilback

Enduro

1939.7	Christian Keilback
1733.7	James Randall
1155.1	Brandon LeCroy
1041.4	Mattias Stjernefeldt
982.4	Virender Dayal
664.6	A. Peter Mee
582.6	Rob Maerz
557.6	Ed Kelly

Jungle Hunt

50,560	Virender Dayal
37,430	Brandon LeCroy
33,630	Mattias Stjernefeldt
22,620	Christian Keilback
21,110	A. Peter Mee
6,950	Ed Kelly
3,300	Rob Maerz

Moon Patrol

35,340	Virender Dayal
28,680	Christian Keilback
13,550	Mattias Stjernefeldt
9,750	Ed Kelly
5,300	Rob Maerz

Ms. Pac-Man

110,770	Virender Dayal
106,530	James Randall
80,640	Brandon LeCroy
77,420	Christian Keilback
70,590	Rob Maerz
63,340	A. Peter Mee
62,230	Ed Kelly
62,110	Mattias Stjernefeldt

Omega Race

68,500	Christian Keilback
48,500	Ed Kelly
47,500	Rob Maerz

Solaris

88,720	Christian Keilback
79,300	Brandon LeCroy
57,840	A. Peter Mee
24,900	Rob Maerz
13,920	Ed Kelly

Star Trek

483,500	James Randall
355,900	Ed Kelly

Stargate

263,750	James Randall
56,900	Ed Kelly
50,650	Christian Keilback
49,700	Mattias Stjernefeldt
44,100	Rob Maerz
37,150	A. Peter Mee

Super Cobra

33,180	Brandon LeCroy
31,090	A. Peter Mee
25,160	Christian Keilback
24,960	Rob Maerz
19,490	Mattias Stjernefeldt
18,310	Ed Kelly

TOURNAMENT FINAL STANDINGS

1.	Virender Dayal	91.77%
2.	Christian Keilback	87.81%
3.	Brandon LeCroy	80.53%
4.	A. Peter Mee	73.01%
5.	James Randall	71.24%
6.	Mattias Stjernefeldt	53.96%
7.	Ed Kelly	53.25%
8.	Rob Maerz	49.37%

THE ARCADE QUALITY COMPETITION

PLAYS LIKE THE REAL ARCADE GAME

November 23 - December 12
RetrocadeMagazine.com

COLECO VISION™

COLECO

The Arcade Quality Competition Final Results

Bump N Jump
186,720	Ed Kelly
160,256	Pat Belair
43,888	Rob Maerz

Frogger
20,420	Virender Dayal
17,110	Ed Kelly
13,340	Rob Maerz

Galaxian
36,030	Rob Maerz
35,350	Ed Kelly

Gyruss
260,600	Virender Dayal
229,200	Pat Belair
82,700	Rob Maerz
77,900	Ed Kelly

H.E.R.O.
156,085	Virender Dayal
129,950	Pat Belair
36,295	Ed Kelly
33,310	Rob Maerz

Looping
179,275	Ed Kelly
38,140	Michael Allard
17,720	Rob Maerz

Popeye
135,600	Virender Dayal
117,870	Ed Kelly
104,390	Pat Belair
32,080	Rob Maerz

Q*bert
996,080	Pat Belair
137,710	Virender Dayal
48,405	Michael Allard
19,370	Ed Kelly
16,355	Rob Maerz

Space Fury
388,260	Rob Maerz
354,540	Ed Kelly
311,350	Michael Allard
35,310	Pat Belair

Star Wars
5,289,213	Ed Kelly
111,652	Pat Belair

Subroc
447,400	Ed Kelly
270,900	Rob Maerz
209,400	Pat Belair

Time Pilot
168,600	Ed Kelly
128,900	Pat Belair
106,900	Rob Maerz
59,200	Michael Allard

Venture
999,800	Virender Dayal
938,200	Pat Belair
922,700	Ed Kelly
518,400	Rob Maerz
258,700	Michael Allard

Zaxxon
99,600	Virender Dayal
99,400	Ed Kelly
77,000	Pat Belair
66,700	Michael Allard
25,900	Rob Maerz

Tournament Final Standings

1. Virender Dayal — 100%
2. Ed Kelly — 99.97%
3. Pat Belair — 88.03%
4. Rob Maerz — 73.52%
5. Michael Allard — 39.05%

RETROCADE MAGAZINE'S

ARCADE
WINTER BLAST

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ARABIAN

108,000 Steve Wagner
72,050 Brandon LeCroy
65,950 Pat Belair
32,800 Rob Maerz

JR. PAC-MAN

241,200 Steve Wagner
206,490 Brandon LeCroy
144,760 Pat Belair
105,340 Rob Maerz

JUNGLE KING

50,930 Steve Wagner
26,690 Pat Belair
24,760 Brandon LeCroy
19,180 Dick Moreland
14,420 Rob Maerz

CENTIPEDE

283,127 Steve Wagner
56,446 Dick Moreland
56,103 Rob Maerz
53,654 Brandon LeCroy
23,553 Pat Belair

Winter Blast Final Standings

100.0% Steve Wagner
53.57% Brandon LeCroy
48.91% Pat Belair
41.02% Dick Moreland
29.14% Rob Maerz

SCRAMBLE

144,520 Steve Wagner
51,220 Dick Moreland
49,040 Pat Belair
18,170 Brandon LeCroy
15,550 Rob Maerz

GYRUSS

1,154,100 Steve Wagner
200,200 Pat Belair
179,350 Brandon LeCroy
139,200 Dick Moreland
94,000 Rob Maerz

TIMBER

360,005 Dick Moreland
172,670 Brandon LeCroy
133,600 Pat Belair
103,470 Steve Wagner
84,780 Rob Maerz

Donkey Kong Barrel Press Competition

December 1-19, 2011

Rules:

- Donkey Kong [US Set 1]; Lives: 3; Bonus 7,000
- Arcade or MAME platforms
- Highest score playing the first board only
- Pauline must be rescued for the score to count

Final Results:

1. 41,700 John McKinnell
2. 41,400 Ross Benziger
3. 40,400 Dave McCrary
4. 20,600 Rob Maerz

High Scores Arcade Scoreboard

Game	Score	Player	Game	Score	Player
Bomb Jack	168,000	Sam Miller	Ms. Pac-Man	871,710 (Turbo)	Sam Miller
Dig Dug	360,120	Bill Holmes	Paperboy	205,539	Gary Heller
Donkey Kong Junior	537,200	Steve Wagner	Punch-Out!!	495,500	Mark Sellers
Frogger	180,940	Ben Falls	Star Castle	23,770	Steve Wagner
Joust	9,999,999	Lonnie McDonald	Star Wars	6,500,578	Donald Hayes
Lady Bug	440,480	George Leutz	Track & Field	85,410	Mark Sellers
Mr. Do!	1,200,000	Jimmy Linderman	Tron	999,977	David Cruz

Klassic Arcade Scoreboard

Game	Score	Player	Game	Score	Player
Centipede	1,111,111	Donald Hayes	Joust	10,001,425	Lonnie McDonald
Donkey Kong	720,500	Hans Kollinger	Pac-Man	3,182,960 (Turbo)	Tye McGothlen
Donkey Kong Junior	430,800	Alex McGlothlen	Satan's Hollow	14,445,505	Donald Hayes
Frogger	299,990	Donald Hayes	Deluxe Space Invaders	32,500	Donald Hayes
Galaga	3,311,950	Jon Klinkel	Tempest	288,200	Jim Stark
Galaxian	56,780	Joel Reinoehl	Tron	1,999,999	Donald Hayes
Gyruss	918,300	Donald Hayes	Zaxxon	839,250	Donald Hayes

Classic Arcade Gaming (dot com)

A great source of unique and valuable information about the arcade games that were brought out during the classic era, Classic Arcade Gaming (dot com) is *the* resource for anyone interested in classic arcade gaming and everything that goes along with it.

Featuring:

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- Interesting articles
- The latest news
- New world record scores
- Tips and write-ups from world-class gamers
- Unique and rare documents, videos, magazine and newspaper article reprints and much more

Classic Arcade Gaming (dot com) Scoreboard

Game	Score	Player	Game	Score	Player
1943	2,699,120	Jimmy Linderman	Journey	522,825*	Zack Lubow
Beastie Feastie	353,943	Donald Hayes	Mr. Do!	30,075,000	Jimmy Linderman
BurgerTime	11,512,500	Bryan Wagner	Nova 2001	1,735,270	Donald Hayes
Crazy Kong	515,100*	J.J. Cahill	Phoenix	759,595	Richie Knucklez
Donkey Kong II	245,600*	Ben Falls	Star Wars	6,369,344*	Donald Hayes
The Glob	142,847	Mark Alpiger	Turbo Sub	15,190,500	Jason Spindler
Gyruss	1,049,950*	Donald Hayes	Zaxxon	1,218,300*	Donald Hayes

* denotes 1 hour time limit

MAGFest X

by Scott Schreiber, RetroGamingRoundip.com

This being my first article in the publication I figure I should introduce myself. I have been collecting and restoring classic video games and pinball since the late 80's. My specialty really centers around the early arcade titles from 71 till about 85 and in pinball spanning from the 50's through present day. As one of three creators of the RetroGaming Roundup podcast I have had the pleasure and privilege of interviewing the alumni that created all these great games, and sharing that experience with my co-hosts UK Mike and SoCal Mike.

We do a monthly show with an average of over six hours of content, and I hope to bring some of our experiences and adventures to this new audience. One of the favorite experiences we have had the pleasure of being a part of through the show is hitting some of the bigger gaming expos around the country. We have hit Classic Gaming Expo (CGE) which you will read about next issue, E3, MAGFEST and others. Our goal will be two fold, cover the events we attend and more importantly let you know what is coming up and why you should spend your vacation time and effort to go.

MAGFEST 10 just happened in January of 2012 so there was no way to cover it in time to inform you, but rather than thinking about what you missed, make your plans to attend and be a part of the action next year. MAGFEST 2013 is already booked.

MAGFEST is an expo with an interesting past, it was originally founded as the Mid Atlantic Gaming Festival and while fun, was just not going to go anywhere until the remains of it were bought by a dedicated group of friends who pooled their savings, and money yet to be earned, to buy the con that they loved. Since then MAGFEST has grown steadily and has grown by double the last few years. In 2011 they outgrew their old venue with its cap of 3,000 guests and moved to the National Harbor Convention center in Washington D.C. and hit over 6,000 registered for 2012. MAGEST also grew from just a gaming festival to become the Music and Gaming Festival (MAGFEST) as we know it today.

So what all goes on at MAGFEST? As spokesman Nick the Newbie will tell you, it's a 4 day gaming party with a rock concert attached. But not just one rock concert, over twenty acts performed for the MAGFEST audiences, averaging five concerts a night. Bands such as Descendants of Erdrick, Bit Brigade, The Protomen,

This Place is Haunted, DJ Cutman, and even the Earthbound Papas fronted by the composer of much of the Final Fantasy series play the MAGFEST stage for hours each night.

The panels at MAGFEST are also a highlight and cover topics including a voice actors panel featuring celebs such as Jon St. John the voice of Duke Nukem as well as present day greats, the Angry Video Game Nerd, and even the Smithsonian museum showed up to present their new video game exhibit featuring the art of video games.

Heading downstairs to the massive expo hall, and I really need to take a moment to talk about how huge this venue is. The NHCS is the largest non-gambling convention hall on the east coast, the scale of the place made us wonder if we could fill it. Downstairs is the cavernous hall that houses the vendor area which had well over 100 vendors selling anything from classic gaming hardware to artists originals based on the latest games. Following around from the vendor area you reach the table game area which allows you to check out traditional, role playing, and innovative board games for group play. These guys are really hard core and you can see them gaming in the hallway 2 days before the venue even opens. Behind the board game area is the LAN room. The LAN room allows guests to bring their own PCs and plug them into the power and network infrastructure that they provide for freestyle and scheduled multiplayer games. Crossing over into a second 30,000 sq foot hall you enter my home for MAGFEST, the arcade.

Like many things in MAGFEST the arcade has been growing each year, last year we had over 100 video games and pinballs and this year we topped over 200. As a member of the MAGFEST arcade department I can proudly tell you that we work for days prior and days after the fest to truck in the machines and assemble the

most amazing arcade that you will ever see. All the games are on free-play and like everything else the arcade is open the entire time of MAGFEST. And our neighbors at the front of the hall bring an equally large array of consoles representing everything from the 8 bit era to present day.

MAGFEST is also one big party, there are room parties, elevator parties, and you will meet gamers from the whole spectrum of retro to modern. You will get a chance to get your gaming gear signed by industry greats, stop by the RetroGaming Roundup booth to hang with the hosts, and get up close and personal with the bands, chip tune artists, DJs, and of course the team that created the event. And the best part about MAGFEST, for the price of your admission you get access to every concert, every panel, the consoles, the free-play arcade, the LAN room, and everything else for all four days, twenty four hours a day.

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"Classic Gaming" Is Not a Tag That Can Be Given To Just One Era

As I look back over the past 30 years it's amazing to me to see how much has changed in the video game industry since I dropped that first quarter into a Pac-Man machine way back in September 1981. From huge leaps in technology to changes and shifts in how and where people play games, I've seen every bit of it and have loved the entire ride.

Perhaps the most interesting change has been the shift in the age of your typical gamer. While some of the mainstream media may still paint gaming as a "kids toy" the most recent industry stats show that 82 percent of those playing the modern gaming platforms are over the age of 18, a stat that becomes even more telling when it's noted by the Entertainment Software Association that the average age of a gamer is 37 years of age and the average length of time they've gamed is 12 years.

The news stories of the "hot new fad" of video games seem like a million years ago now as I think about the fact that there are generations of gamers who have never known a time where gaming wasn't popular. As such, I no longer feel the term "classic" can be given to just one video game era.

Ask most people who'll be reading this magazine what they consider a "classic game" and they'll likely refer to the early 1980s. Some may even call that era the "Golden

Age of Video Games" or what have you, a title that I already never fully agreed with. Certainly the "Golden Age of Arcades" would apply, as that industry saw its peak in 1981-82, but not gaming in general.

Some even classify the end of the "Golden Age" to be 1987, another point in time I cannot accept. The arcade industry fell off a cliff in 1983-84 and the home industry imploded around the same time. If anything, the crash should mark the end of that era as a clearly defined marker. By 1987, the arcade market had stabilized and the home console market was booming to a point where it actually saved the video game industry in North America.

By any definition, the early 1980s is clearly a classic era, but it can't be considered THE classic era any longer. Games such as Donkey Kong, Pac-Man and Galaga were tagged as "classics" in gaming magazines as early as 1988, well under a decade after they first took over the gaming world.

Try telling someone whose earliest childhood memories were of the Nintendo Entertainment System that the era of Super Mario Bros., The Legend of Zelda, Mike Tyson's Punch-Out!! and Mega Man falls outside of the "classic gaming era" or the "Golden Age" of gaming. You can't, and with good reason, as the NES outsold and outperformed anything done by any gaming console before it, including the Atari 2600, which is

more than doubled in lifetime console sales.

Try telling someone who first discovered the joy of video arcades when Street Fighter II, Mortal Kombat, NBA Jam, NFL Blitz and Daytona USA drew crowds in every location that had them in the 1990s. No, the video arcade craze wasn't near the fever pitch it was in the early 80s but it was mainly due to lessons learned by operators who worked hard to avoid marketplace oversaturation. Each of the arcade games I just listed, and several more, earned more money per week during their peak months than any early 80s hit ever did, and most were later translated into huge home console hits that defined the 16-bit console era and beyond.

Try telling someone who was part of the sales firestorm that was the original PlayStation console, a game system that is still the second best selling console of all time (topped only by its follow-up, the PlayStation 2). Tomb Raider was such a huge seller that it was made into a major motion picture while other games that found success on the console still continue to this very day.

To many, if not the majority, of video gamers the history of the industry is defined by the sum of the parts of every era that came before the modern day success of the industry. Today's sales figures, in fact, make it hard to argue the fact that the modern day era of video gaming is the true

"Golden Age" of gaming. Call of Duty: Modern Warfare 3, released in November 2011, appears to be on pace to sell more copies than the Atari 2600 console did in its entire lifespan.

But the "classic" tag? That people will argue. In the end, they are all correct, as it's become too broad of a tag to give to any one era. The early 80s games are classics but so are the late 80s games, the hits of the 90s and even the top games of the turn of the century. Some might even consider Guitar Hero a classic before long, and that's fine if they do.

Tagging the early 80s as "the classic era" might have been okay in the 1990s but not today. Today it would be arrogant to continue doing so and discounting the importance and impact of the several major eras that have taken place as the industry continues to age and the dust begins to clear on what will stand the test of time.

Personally, I'd prefer a gaming culture that didn't define itself so much with categories and tags but that could be a whole other column. People are going to define what they feel are classic video games based on their own feelings and experiences, but no one era can lay claim to owning the term any longer.

I'm sure these thoughts will make for some discussion in various "classic gaming" forums and it's meant to. Hopefully it will encourage those who wish to define their era in another way that allows the "other" classic eras to be respected for their lasting impact on gaming as well.

In the meantime, regardless of what a "classic game" might mean to you, keep on playing and having fun.

Abobo's Big Adventure Is the Ultimate 8-bit Tribute Game

As much as some followers try to stick the "classic arcade" tag on me, I am every bit as much of a fan of the 8-bit console era of the later 1980s. Back then, if I wasn't sleeping, eating, showering or doing my homework I was on my Nintendo Entertainment System, and I wasn't adverse to skipping one of those listed tasks at times to play it.

Months back I learned of Abobo's Big Adventure, a fun looking Flash-game parody of the entire NES era, and began looking forward to it. The game went live last night and exceeded my expectations, something that is difficult to do with me.

Yes, you are Abobo, the big muscle-headed ugly guy made famous in Double Dragon and you are pretty darn grumpy. Seems a variety of 8-bit characters kidnapped your kid and you are out to get him back. Thankfully they skip explaining how a guy that looks like Abobo managed to become a father.

As you begin your game you are instantly bombarded with characters from just about any NES-era game you can name. You'll have to do battle with those pink sweater-vest guys from Kung Fu, characters from Renegade, River City Ransom and even T&C Surf Designs. You'll encounter Goombas, Mega Man boss enemies, the masters of the Pro Wrestling ring and so many more. Even the title screen is full of any 8-bit game character you want to name, from the Duck Hunt duck to

the Eggplant Wizard from Kid Icarus. Finally I got to live out my life-long desire to punch Kid Niki in the face, even if I had to dodge exploding barrels from Donkey Kong while doing so.

The game plays right in your browser and can use arrow keys or a gamepad to play. As with the 8-bit games of the day there are only two buttons to learn to use. Just pick up and play, and play you should.

Abobo's Big Adventure is the ultimate 8-bit tribute game and a must-play for any fan of the era. You can stop reading this article now and go do just that by going to http://abobosbigadventure.com. ≈

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BBC Micro

The BBC Micro was a series of computers that were designed and built by the company Acorn Computers for the BBC Computer Literacy Project that was run by the BBC. They were designed with education in mind and they were renowned for being rugged, expandable and for having a great operating system which made them ideal for use in schools.

I actually almost ended up with an Acorn computer for several reasons, they looked as cool as hell and futuristic with the monitor being built in similar to something like the Apple Lisa but much more rounded and sleek looking. Pester power won through in the end though and despite the Acorn being more education oriented I persuaded my dad that the Commodore 64 was the way to go but the BBC Micro in its day was a great system.

Acorn had to put in a tender for the Literacy Project because they wanted to build a computer system that would accompany the BBCs TV programmes and literature, and when they won the contract they named the computer the BBC Micro and it became very popular in schools. They changed Acorn's fortunes and they also became popular in many homes as well, despite having a comparatively high price tag.

The Model A was initially priced at £235 and the Model B £335 but these prices rose almost immediately to £299 and £399 respectively because of increased costs and that put them way over the price tag for their competitors. I remember my Commodore 64 costing £250 but it came with everything, Computer, Cassette Deck, Joystick and Games.

Acorn forecast that its total sales would be around 12,000 units, but eventually (wait for it), more than 1.5 million BBC Micros were sold.

Being fully aware that their costs were high in comparison Acorn made a cheaper option which was a largely compatible but cut-down version intended for games. The 32K Acorn Electron had games written specifically for it, and it's one of these that I almost got, but those games could also usually be run on the BBC Model B.

There were actually twelve models produced and the term "BBC Micro" is usually used to refer to the first six of them, and those six were the Model A, Model B, Model B+64 and Model B+128, the Master 128 and the Master Compact. The later six models were referred to as the Archimedes series.
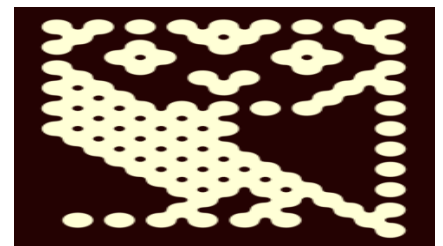
So what was the BBC Computer Literacy Project and why was it so important? Well, in the early 1980s the project began in response to a very influential ITV documentary series called The Mighty Micro. In that series Dr Christopher Evans from the National Physical Laboratory predicted the computer revolution, and he forecast that it was going to have a huge effect on the economy, on industry and on the lifestyles of people in the UK.

The BBC wanted their project to jump on this bandwagon and they wanted a computer that would be able to demonstrate various tasks and they would feature it in their 1981 documentary series called The Computer Programme. The list of topics covered by The Computer Programme included programming, graphics, sound and music, Teletext, controlling external hardware and artificial intelligence. They drew up plans for a computer spec they wanted to use and began to look for somebody to build it for them. Remember the name Sir Clive Sinclair from the C5 review? Well Sinclair was asked about supplying the computer and he offered them one called the NewBrain Micro but it was rejected so the BBC met with other companies including Dragon and of course Acorn.

The Acorn team had already been working on an upgrade to their existing Atom microcomputer known as the Proton which included better graphics and a faster CPU. The machine was only in prototype form at the time, but the Acorn team worked through the night to get a working Proton together to show to the BBC. The Acorn Proton was the only machine to come up to the BBC's specification, and actually exceeded it in nearly every aspect.

So for obvious reasons it was Acorn's machine that was released as the BBC Microcomputer in late 1981 and became affectionately known as the Beeb (a term often used to refer to the BBC itself) and it was to become very popular in the UK, especially, as I mentioned, in the education sector.

Now, commonly among computers released around this time, including the Sinclair ZX Spectrum and the Commodore 64, both released later in 1982, demand greatly exceeded supply, and it was months before some customers received the machines they had ordered. There was a brief attempt to launch the machine in the US which failed. The version of BASIC III had been modified to accept the American spellings of words like COLOR but unfortunately the height of the graphics display was reduced from 256 scan lines per field to 200 to suit NTSC TVs and that had a huge effect on running the applications meant for British computers. After the US launch failed, the remaining machines were remade for the British market and sold off.

Really the success it had in the UK can be largely attributed to its adoption by the education system as a whole, and it was used by many schools to deliver their courses on Computer Literacy and Information Technology.

Some Commonwealth countries, like India, started their own Computer Literacy programs and they also used the BBC Micro which further increased the sales figures for Acorn.

A company called Research Machines had, until this time, been the primary provider of educational computers but one of the main advantages which helped the BBC Micro in the educational market was its durability. Compared to the Spectrum and the Commodore 64 it was far more solidly built and more than up to the task of putting up with some of the rough treatment it got in schools.

So let's dig into the specs a little bit and compare some of the range.

The Model A had 16 KB of user RAM, while the Model B had 32 KB. A feature that the Micro shared with other 6502 based computers such as the Apple and the early Commodore models was that the RAM was clocked twice as fast as the CPU at 4 MHz, with alternating access given to the CPU and the video display circuits. This meant that the Micro had a fully unified memory address structure with no speed penalties. Most of its competitors with memory-mapped display did suffer from CPU speed penalties depending on the actions of the video circuits, for example the Amstrad CPC and the ZX Spectrum. Some took a different approach and kept the video memory completely separate from the CPU address pool such as the MSX.

The BBC Micro had a number of extra I/O interfaces such as serial and parallel ports, an 8-bit general purpose digital I/O port, a port that supported four analogue inputs, a light pen input, and switch inputs. It also had an expansion connector known as the "1 MHz bus" that meant you could hook up extra hardware.

You could expand it with extra ROM chips, either 4 on the PCB or 16 with expansion hardware, and these extra ROM chips could be accessed via paged memory. An Econet network interface and a disk drive interface were also available as options but rarely requested, neither was the proprietary interface called the "Tube" which allowed a second processor to be added, but the Tube was later used in third-party add-ons, including a Zilog Z80 board and disk drive that allowed

the BBC machine to run CP/M programs, and it allowed Acorn to use ARM CPU-equipped BBC Micros as software development tools when they created the Acorn Archimedes series.

One of the software titles that ran on the Tube was an enhanced version of Elite, and this game was simply massive on the Beeb. Another was a CAD package that required a second 6502 Processor and a 5-dimensional joystick called a "Bitstick".

The Model A and the Model B were built on the same PCB and a Model A could be upgraded to a Model B without too much difficulty. Model A users that wanted to run Model B software only needed to add the extra RAM and a chip and snip a link so it could be done without soldering, but to do a full upgrade with all the external ports as well you would need to solder the connectors to the motherboard.

Some of the faults that the Beeb would suffer from included the early model power supplies overheating, and a flaw in the manufacturing process meant that a big percentage of Model Bs produced a buzzing noise from the built-in speaker, but you could reduce it a little by adding a resistor.

The new Model B+ arrived in 1985 and it had increased RAM of 64 KB and floppy disk support as standard, but unfortunately, or rather stupidly, it wasn't compatible with some original BBC B programs and games. The problem was that the original Intel 8271 floppy disk controller had been replaced by the Western Digital 1770 and it was mapped to different addresses. There were

8271 emulators but they were only good for basic operation and weren't up to playing games. One such well known example was the game Repton Infinity from Superior Software which refused to run on the B+. The game was re released several times before a version fully compatible with both systems was made.

The Beeb had a large software library ranging from games to educational titles including, as I mentioned, Elite, which was the game's original release, and as the early BBC Micros allowed machines to be networked, and many schools and universities built Econet networks, there were several network multiplayer games created. Not many of them were successful, presumably because they targeted neither the home nor the educational market, more a mixture of the two. The exception to the rule was a tank game called Bolo.

The built-in operating system, Acorn MOS, had an extensive API that interfaced with all the standard peripherals, all the ROM-based software and the screen too, and you could program things like vector graphics, keyboard macros, cursor-based editing, sound queues and envelopes, things that were usually restricted to BASIC. Acorn tried to dissuade programmers from accessing the hardware and system variables directly and recommended the use of official API calls. One of the main reasons for this was so that programs would still work if and when they were moved over to the Tube processor but it also had the side effect of making software more portable and compatible across the Acorn range of computers.

The built-in BBC BASIC, which sat on one of the ROM chips, was

pretty much ahead of its time and made the Beeb much more suited to the education sector because users could write extensive programs without having to use unstructured languages or machine code - something not true of its competitors.

In 1986 the BBC Master series appeared which offered memory sizes from 128 KB and several other improvements on the original 1981 model, although it was still based on the 6502 architecture. In 1985 though, Acorn had produced their own 32-bit RISC CPU, the ARM2, and were working on building a personal computer around it. That would eventually be released in 1987 as four different models in the Archimedes series, with the two lower-specced models being released as BBC Microcomputers, and the last

model, the BBC A3000, was released in 1989 but the Archimedes range failed to live up to the same success that the Beebs had.

Back at the end of the last Millennium, I was an HGV Driver and I was working on a contract with the Cadbury-Schweppes group, and I used to collect lots of loads of chocolate and packaging from the main factory in Bourneville, and as late as 2001 when I was last there, the warehouse and dispatch offices were using BBC Micros and Dot Matrix printers, but sadly I don't remember which models they were.

Wikipedia will tell you that as late as 2005 there are still many BBCs

in use, and a BBC B+ was observed running the communications link in an unattended water pumping station in Oxhey in 1995. They still run interactive displays in museums across the country, and Jodrell Bank was reported to still be using a BBC Micro to steer its 42ft radio telescope in 2004.

Musician Vince Clarke from Pop bands Depeche Mode, Yazoo, and Erasure used a BBC Micro, and later a BBC Master, with the UMI music sequencer to write many of his songs, and in his Pop videos you can either see a BBC Micro or it will be providing the text and graphics.

Queen also used the UMI Music Sequencer on their record A Kind of Magic and the UMI gets a mention in the CD booklet.

Obviously the BBC would use their branded computers as well and they provided graphics and sound effects for many early 1980s BBC TV shows such as one called The Adventure Game, and this show's BBC had a plastic box that covered the BREAK key on the keyboard so that the contestants wouldn't press it by accident. Another kid's show that used one was the quiz show "First Class" where the onscreen scoreboard was powered by a BBC Micro nicknamed "Eugene". A more famous example was Doctor Who which used Beebs for special effects during the 1980s.

So I hope that's given you some insight into the BBC Micro range of computers and how they came about, what they did, why they were so important and what they still do today, even professionally in some cases.

SPEGA

Jeff Spega
courtesy of Digital Press

Classic Gaming Compilations on the DS

With its dual screens and stylus input, the Nintendo DS provides unique opportunities for emulating classic games. There are at least a dozen wonderful, inexpensive, and barely legal devices from our friends in Asia that will allow you to play thousands of classic games on your DS, but for those of us who would rather spend our time playing games than goofing around with unreliable emulators, there are several classic compilations available for the system at a legitimate game retailer near you (and GameStop).

If you're into classic gaming there is a good chance your eyesight isn't what it used to be. I was doing all my portable business on a PSP Go, but after a year of squinting at that tiny screen I traded it in for a DSi XL. In my opinion, the XL is the first portable system to do classic arcade titles proper justice. Games in which you can be taken down by the tiniest laser particle such as *Tempest*, *Galaga*, and *Time Pilot* are impossible to play effectively on a small display. If you haven't seen a classic game on the XL's four-inch screen, you ought to. The larger system breathes new life into compilations you may have forgotten about a long time ago (not to mention other DS games).

What follows is a roundup of the six available classic compilations, which I am evaluating on the following criteria (using traditional grade school ratings):

Game selection: given the relatively miniscule amount of data necessary to run a game from the 1970s/1980s, I think it's reasonable to expect a compilation to contain more than a dozen arcade games, including at least two or three stone-cold all-time classics. Double that number if we're talking console games.

User interface: the UI should look nice and be easy to navigate.

Emulation quality: the game should run, look, and sound just as it did in the arcade.

Controller flexibility: I should be able to adjust the controls as I wish, just as I can on a free PC emulator.

High score save: I mean, duh. Classic games are all about high scores.

Extras: Interviews, trivia, flyers, manuals, etc. are always appreciated. Wireless multiplayer is a good thing too!

Compilation: *Retro Atari Classics*

Released by: Atari, 2005

Overview: This compilation was an early release for the DS and was absolutely savaged by critics, who especially disliked the collection's "Remix Modes". But time has been kind to *Retro Atari Classics*, as I will explain shortly.

Game selection: 10 arcade games (*Centipede, Tempest, Pong, Warlords, Missile Command, Breakout, Sprint, Gravitar, Asteroids, Lunar Lander*). This was 2005, so the smaller game selection is somewhat forgivable. The emphasis seems to be on Atari's earlier arcade games, and the art style of the overall presentation also bears this out. Therefore, I think it would have made more sense to include a couple more of the older 1970s games instead of *Gravitar*. **C**

User interface: The simple interface looks good, with the game title appearing on the top screen and the navigation on the bottom. The 1970s art style is appealing. Unfortunately you must use the touch screen to select a game. I prefer to have the option of using the d-pad and there is simply no reason not to include it. Again, this is an early DS title, so they try to get too much mileage from the touch screen novelty. **B**

Emulation quality: The games are not emulated. For each game you have the choice of classic mode or remix mode, but the classic mode is not an emulation of the arcade game. All the games are somehow altered. For example, in *Asteroids* the rocks are larger and move slower. In *Missile Command*, the missiles descend from the top of the upper screen, and you can't shoot them until they reach the lower screen. *Tempest* is the closest to the arcade original, but it has slightly altered graphics. The remix modes play exactly the same as the classic modes, but the graphics are impossibly ugly. I'm giving an **F**, but it turns out featuring altered games as "classics" isn't necessarily a bad thing…

Controller flexibility: For better or worse (usually worse) you are locked into whatever control scheme

they came up with, and some of them (like *Tempest*'s) force you to use the stylus. Other games are fine… in *Asteroids*, for example, you can press up to thrust or use a button like the arcade game. There is no mapping of controllers, analog adjustability, etc. You know, all the stuff you got accustomed to when MAME came out in 1997. **D**

High score save: The game will save your high scores but not your initials. You'll have to challenge your friends on the honor system I guess. **C**

Extras: Nothing except "info" that just gives basic controls and multi-card multiplayer on *Pong*, *Sprint*, and *Warlords*. I think wireless multiplayer on handhelds is a terrific technology (especially when utilized to play something as archaic as *Pong*), but my personal use of it is limited to once-in-a-blue-moon gaming events… cut that down to never if we're talking multi-card. **D**

Final Score: This collection was garbage in 2005, but a funny thing happened on the way to 2012: Atari released arcade-perfect collections of almost all the games included here, on multiple formats, including two DS cartridges. So as hungry as you may have been for arcade-perfect Atari games in 2005, by now you've probably had enough of them. By now you'd probably appreciate a slower, less-challenging *Asteroids*, touch-screen *Missile Command*, and *Centipede* for the legally blind. One of the collection's greatest weaknesses, its unfaithful arcade ports, has become a virtue. Therefore, *Atari Retro Classics* earns a cautious recommendation. Just don't buy it for *Tempest*. **C**

Compilation: *Konami Classics Series Arcade Hits*

Released by: Konami, 2007

Overview:
Konami released an excellent compilation for the Game Boy Advance only about a year before the DS cartridge. At the time, (the awkwardly-titled) *Konami Classics Series Arcade Hits* seemed redundant, but now that GBA compatibility has been phased out of the DSi line, this difficult-to-find collection is a must.

Game selection: 15 arcade games (*Contra, Gradius, Time Pilot, Scramble, Rush'N Attack, Horror Maze, Pooyan, Roc'N Rope, Track & Field, Circus Charlie, Basketball, Road Fighter, Yie Ar Kung Fu, RainbowBell, Shao-lin's Road*). Although the collection is a little light on stone-cold classics, all of its games are fun to play. *Gyruss* is a painful omission, and *Frogger* is an unbelievable omission considering how well the game would suit the dual-screen format. Perhaps a second volume was planned, but five years later I think I'll stop holding my breath. **B**

User interface: The game selection screen is perfect, with marquees on the bottom and attract screens at the top. The d-pad is used to navigate, which is preferable since none of the games use the stylus. Menus could be a little easier to navigate. **A**

Emulation quality: Perfect. All the games fill the top screen. *Scramble* and *Contra* were actually vertical games, and you can adjust the display to play them that way if you wish to, but I find both are much better played horizontally… actually, I feel that's how they should have been made in the first place. **A**

Controller flexibility: MAME-like config screens let you tweak everything. As far as I can tell there is not a way to use the stylus in any of the games, which is a good thing. At no point do they shoehorn in touch control just for the sake of using it. **A**

High score save: Saves using the games' existing high score tables. No better way to do it if you ask me. **A**

Extras: Each game has a small archive of photos and music. There are even photos of the boards. You can exchange replays with another DS, although frankly I'm not sure why you would. **C**
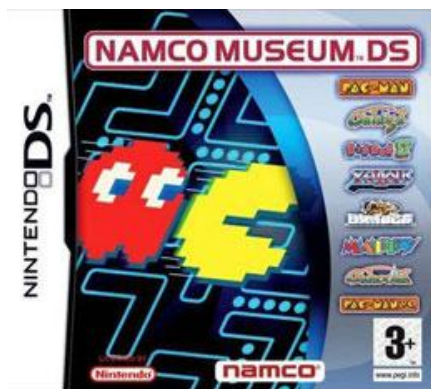
Final Score: This is how you do it: nice interface, perfect emulation, and fully configurable controls. This is Konami we're talking about here, so none of these games exactly blow me away, and at twelve games the collection feels a little lightweight. *Konami Classics Series Arcade Hits* is absolutely worth tracking down, and I speak from experience when I say that. **B**

Overview:
Namco released a five-volume compilation on the PlayStation in the mid-1990s. At the time a collection of perfectly-emulated classic arcade games with historical documents was a novelty, therefore splitting up the games over five discs was excusable. Ever since Namco has been releasing stingy compilations and *Namco Museum DS* is no exception. In fact, it's Exhibit A.

Game selection: 7 arcade games (*Pac-Man, Galaga, Dig Dug II, Xevious, The Tower of Druaga. Mappy, Galaxian*), 1 GameCube game (*Pac-Man Vs.*). *Super Xevious* is a secret game, and forgetting for a minute that I despise hidden games in a compilation, it seems like the same game as *Xevious*. Not on the collection: *Ms. Pac-Man, Pole Position, Galaga '88, Super Pac-Man, Bosconian*, and *Rally-X*. I assume the idea was to bundle *Ms. Pac-Man* with a second collection. Seven games just doesn't cut it. **D**

User interface: A somewhat complex tabbed interface that takes getting used to. You'd think with seven games there wouldn't be much confusion. Similar to the Konami interface, but more confusing and less attractive. **C**

Emulation quality: Perfect. As with the Konami collection, games can fill the screen or you can get all hardcore and cut off the sides. **A**

Controller flexibility: Buttons are fully configurable. **A**

High score save: Saves using the games' existing high score tables. True to the original, *Pac-Man* does not save initials… I would have been okay with Namco altering the game to allow for this. **B**

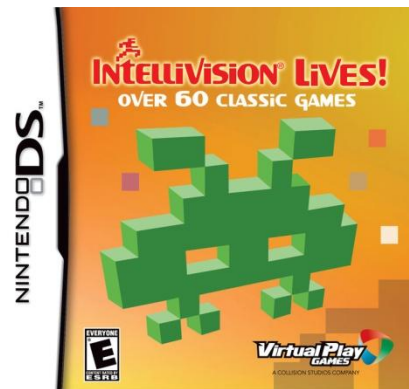**Extras**: A weak library. **D**

Final Score: Poorly presented and not enough games. The inclusion of the multiplayer-only *Pac Man Vs.* is meaningless… just like the original, the hardware requirements are unreasonable. The best thing I can say about *Namco Museum DS* is it's got *Galaga*, and that doesn't count for as much as it used to. **D**

Overview:
Emulation of Mattel's golden era Intellivision console has proven to be challenging in the past, mainly due to the system's unusual keypad/disc controller. With a second screen that can be used for keypad functions, the DS would appear to be the ideal modern console to re-create the Intellivision experience.

Game selection: 59 Intellivision games (*Astrosmash, Space Armada, Space Battle, Space Hawk, Space Spartans, Star Strike, Brickout, Buzz Bombers, Frog Bog, Hover Force, Night Stalker, Pinball, Shark! Shark!, Snafu, Thin Ice, Thunder Castle, Vectron, B-17 Bomber, Bomb Squad, Crown of Kings, Minotaur, Sub Hunt, Tower of Doom, Bowling, Chip Shot Super Pro Golf, Super Pro Decathlon, Deep Pockets, Motocross, Mountain Madness Super Pro Skiing, Skiing, Slam Dunk Super Pro Basketball, Slap Shot Super Pro Hockey, Spiker Super Pro Volleyball, Super Pro Football, Stadium Mud Buggies, World Championship Baseball, Body Slam Super Pro Wrestling, Checkers, Las Vegas Poker & Blackjack, Reversi, Las Vegas Roulette, Royal Dealer, Blow Out, Hard Hat, Sharp Shot, Space Cadet, Triple Action, Armor Battle, Sea Battle, Auto Racing, Boxing, Baseball, Basketball, Football, Hockey, Learning Fun I, Learning Fun II, Takeover, Utopia*). Very impressive breadth of titles here (including several unreleased games), but keep in mind a good number are two-player only. The *Advanced Dungeons and Dragons* titles are here under different names, and some of the sports titles have also been renamed. I think it's terrific that they included those games instead of using the licensing issues as an excuse to leave them out. Yes, a lot of the games stink, but the historical value is undeniable and the handful of stone-cold classics are worth having. **A**

User interface: The controller is emulated on the bottom, navigation on top. I really like how the original boxes are used to select games. **A**

Emulation quality: I confess I am not the best judge of this collection as I was never a big Intellivision player. I can say the one game I am thoroughly familiar with

(*Advanced Dungeons and Dragons/Crown of Kings*) was very glitchy and just not the same game. Some of the other games seemed kind of weird. To be fair I'm not going to score this, but I find it hard to believe some of these games are really this crappy. **NO SCORE**

Controller flexibility: The overlay is on the bottom and the d-pad is used as the disc. Neither is a particularly effective, but this solution is still worlds better than what you get in the PlayStation Intellivision collection. If for some reason you wanted to change something you can't, so there is no controller flexibility so to speak. Overall games that rely on the keypad are difficult to control (but not impossible like in other Intellivision emulators). A valiant, admirable, diligent effort, but if you really want to enjoy these games you need a real Intellivision. **D**

High score save: Surprisingly, yes! **A**

Extras: Multi-player, one card wireless on the two player games. No manuals, but directions are included with each game. **C**

Final Score: Hard to score because the collection is of undeniable historical significance and has great value as a reference, but too many of the games are too hard to play or just not very good. The more simplistic games like *Pinball* and *Shark! Shark!* are fun, but unless you have a buddy to play the excellent sports games with the gameplay value of this collection is a little thin. I'm going to be really generous with this score because it's such a well put-together and comprehensive collection of games for a golden era system. **B**

Compilation: *Atari Greatest Hits Volume 1*

Released by: Atari, 2010

Overview: Atari makes amends for the early release *Retro Atari Classics* with two perfectly emulated collections of 2600 and arcade games.

Game selection:
41 Atari 2600 games (*3D Tic-Tac-Toe, Adventure, Air-Sea Battle, Asteroids, Atari Video Cube, Basketball, Battlezone, Bowling, Centipede, Championship Soccer,*

Dodge 'Em, Flag Capture, Football, Fun With Numbers, Gravitar, Hangman, Haunted House, Home Run, Human Cannonball, Math Gran Prix, Miniature Golf, Missile Command, Outlaw, Realsports Baseball, Realsports Boxing, Realsports Football, Realsports Tennis, Realsports Volleyball, Sky Diver, Slot Machine, Slot Racers, Sprintmaster, Star Ship, Stellar Track, Submarine Commander, Surround, Swordquest Earthworld, Swordquest Fireworld, Swordquest Waterworld, Tempest Prototype, Video Checkers) and 9 arcade games (*Asteroids, Battlezone, Pong, Centipede, Lunar Lander, Missile Command, Gravitar, Tempest, Space Duel)*. Even split into two volumes and missing licensed jewels such as *Space Invaders*, *Defender*, and *Berzerk*, this is a massive collection of great historical significance. **A**

User interface: Thankfully this does away with the unnecessary and confusing "constellation" theme of the console compilations. Games are selected from a simple menu and the cabs/cartridges are displayed on the top screen. Not as much finesse as the Konami collection, but it gets the job done. **A**

Emulation quality: I've played all the arcade games on both volumes and at least half the console games, so take it from a certified Atari freak: it is perfect. The only exception is *Asteroids*, which plays a little fast. **A**

Controller flexibility: The arcade games offer different configurations and stylus schemes. You can't assign buttons, but what you can do is adequate. The VCS games let you configure the console switches on the lower screen. **B**

High score save: Only on the arcade games which save their native high score tables. It's a bummer that you can't save your VCS high scores, which in my opinion is this collection's greatest flaw. **C**

Extras: Trivia game, photos, manuals, and the US Army version of *Battlezone*. Single card wireless two-player on some games. Volume 2 has better extras. **B**

Final Score: Even though it's split over two volumes, I like this better than the console compilations. These games look great on the DSi XL screen! **A**

Overview: Volume 2 catches up on the missing 2600 games from the first collection, of course minus the licensed games. The non-inclusion of *Space Invaders*, in my mind THE definitive home console video game, is a sore point for me. Otherwise, here's another metric ton of Atari goodness.

Game selection:

41 Atari 2600 games (*A Game of Concentration, Backgammon, Basic Programming, Blackjack, Brain Games, Breakout, Canyon Bomber, Casino, Circus, Codebreaker, Crystal Castles, Combat, Combat 2, Demons to Diamonds, Desert Falcon, Double Dunk, Fatal Run, Golf, Maze Craze, Millipede, Night Driver, Off the Wall, Quadrun, Radar Lock, Realsports Basketball, Realsports Soccer, Return to Haunted House, Secret Quest, Sentinel, Space War, Star Raiders, Steeplechase, Street Racer, Super Baseball, Super Breakout, Super Football, Video Chess, Video Olympics, Video Pinball, Warlords, Yars Revenge),* and 9 Atari arcade games (*Asteroids Deluxe, Black Widow, Crystal Castles, Liberator, Major Havoc, Millipede, Red Baron, Super Breakout, Warlords).* **A**

User interface: Same as Volume 1. **A**

Emulation quality: Same as Volume 1. The way they did the background art on *Asteroids Deluxe* is super cool. **A**

Controller flexibility: Same as Volume 1. **B**

High score save: Same as Volume 1. **C**

Extras: Nolan Bushnell interview clips, photos, manuals, and a nifty Atari 400 emulator (sorry no games, just BASIC). Single card wireless two-player on some games… this collection includes *Combat* and *Maze Craze*, so the multiplayer is stronger here than on Volume 1. Multiplayer Warlords requires multi-card. **A**

Final Score: Even better than Volume 1! **A** 🦀

The RetroBlog

Retroboards Score Updates…

Alien: 62,758
Amidar: 5,955
Bank Heist: 199,978
Barnstorming: 32.90
Battlezone: 425,000
Berzerk: 4,980
Centipede: 66,062
Crackpots: 267,050
Crystal Castles: 123,057
Demon Attack: 9,790
Donkey Kong: 67,900
Dragonfire: 68,130
Dragster: 5.77
The Earth Dies Screaming: 35,425
Encounter At L5: 4,719
Enduro: 2187.9 Day 12
Fast Food: 13,484
Freeway: 32
Frogger: 1,771
Grand Prix: 29.73
Indy 500 Game 6 (Crash N Score I Time Trial): 43
Indy 500 Game 8 (Crash N Score II Time Trial): 50 (with
Joust: 274,650
Jr. Pac-Man: 57,360
Jungle Hunt: 39,840
Juno First: 50,800

Tournament Updates…

Vector War Final Results

Tournament Final Standings
1. Helmut Mueller 66.07%
2. Ian Nicholson 65.74%
3. Dave McCooey 62.85%
4. Rob Maerz 59.48%
5. Jasper Alto 53.62%

Armor Attack
1. 106,200 Ian Nicholson 100%
2. 51,800 Helmut Mueller 48.78%
3. 32,000 Dave McCooey 30.13%
4. 31,300 Rob Maerz 29.47%
5. 29,400 Jasper Alto 27.68%

Rip Off
1. 4,480 Dave McCooey 100%
2. 4,450 Helmut Mueller 99.33%
3. 4,320 Jasper Alto 96.43%
4. 3,180 Ian Nicholson 70.98%
5. 2,280 Rob Maerz 50.89%

Scramble
1. 66,140 Helmut Mueller 100%
2. 37,900 Ian Nicholson 57.3%
3. 35,670 Jasper Alto 53.93%
4. 31,480 Dave McCooey 48.14%
5. 29,230 Rob Maerz 44.19%

Updated Weekly

RetrocadeMagazine.com/apps/blog

Here's the introductory edition of my regular (or, possibly semi-regular, given my schedule) column in this fine publication! I'm Mark Alpiger, classic arcade gaming enthusiast (and, owner of the site that's named after that hobby...namely, **classicarcadegaming.com**!), and co-star in **The King of Kong** movie.

I think the best way to start things off is to make sure that everyone reading this is aware of the big seventh edition of the annual **Classic Arcade Gaming (dot com) Tournament.** It's set for the weekend of March 24 and 25 this year, and is in the biggest city to date that's hosted the tourney - Chicago! As always, this event is the only one in the history of the hobby to put the players first, and allow them to choose a game to be in the event, and also, let them choose what selection (from the approximately 21 tourney titles) of the games they wish to play. This flexibility lets everyone compete, and have a chance to win a part of the generous prize money purse of $425.

Currently, these titles are among those picked by entrants, and they will be part of the tourney game selection: **Donkey Kong, Pac-Man, Robotron, Tron, Track & Field, Zaxxon, Gyruss**, **Punch-Out!!**, and **Tetris Plus 2.** Others will go in as players sign up, and pick a title that they want to have in the event, which makes it (literally) their event.

Now, no doubt we'll see a few records fall at the tournament, but speaking of that, I think it would be a great idea to note a few world records that have been notched, and / or verified recently. Let's start out with two of the tournament

games; **Pac-Man** and **Tetris Plus 2.** The former title has had the fastest arcade time track, as verified by Twin Galaxies, lowered yet again. On January 4, 2012, Beavercreek Ohio resident David Race played a perfect game (no blue-time ghosts missed, no prizes missed, and no lives lost until necessary on screen 256) in an incredible time of **3:33:01 h:m:s.** David has set this record mark before, and has worked many years on lowering the time to this incredible level. He recently revealed to me that his ultimate goal is a sub three and a half hour game. Good luck to him on that, and congratulations on his recent world record!

Now, for one of my favorite game titles of all time: **Tetris Plus 2.** I've had both the fun, and the challenge, of playing this title, and boosting my already nice world record scores on the MAME platform to an excellent level. After many months of play during the middle of last year, I took my decade-old record of 1,852,900 to a hefty **1,919,400** points in January of this year. And, I'm not done yet - with some additional research and tweaks, plus some game 'path' changes (you can choose various routes during game play), I think I have a chance at a 1.96M score, which would top the reported Gamest arcade world record. It will take hundreds of games, but I think I can make it happen.

One other incredible feat I've achieved on TP2 is a perfect game - using one of the harder paths available, I made 1,894,100 points in November 2011. This is actually a feat that I listed as among my three most prized accomplishments in the history of my gaming. Very nice...

OK - now, to wrap up, let's take a look at the state of the hobby, since it's a new year. And, with that in mind, I do think it's

reasonable to think about resolutions. Some things that I'd like to see every *quality* person who's involved in this hobby go about doing are:

Be competitive, but be reasonable with others. In the last year or two, I've seen so many people jump to unreasonable, unfounded, and / or illogical conclusions about others. Why would anyone assume the worst, when they should not only assume the best, but also consider the person's track record, and give them the benefit of any doubts? Doing all of that exudes class, and helps the hobby at the same time!

Help others, and the hobby, versus being unhelpful (or worse), and / or wasting time and energy with unreasonable and unfounded negativity.

Don't involve yourself with others (or their endeavors) that have a track record of obvious poor behavior or abuse toward others. If everyone would follow that credo, the asinine behavior would literally disappear.
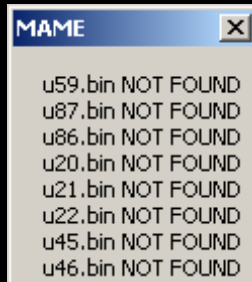
OK - I'm climbing down from the soapbox now! I just had to throw out some of the above thoughts, since I've seen the hobby greatly diminished by petty issues, and / or unreasonable people. If everyone put the players in the hobby first, and put all their time into helping the hobby and those in it, we'd have an amazing situation on our hands. Let's all make that the goal, starting this very minute.

Here's to a great 2012, both for the hobby, and for the quality players (and organizers too!) who are out to achieve great things!
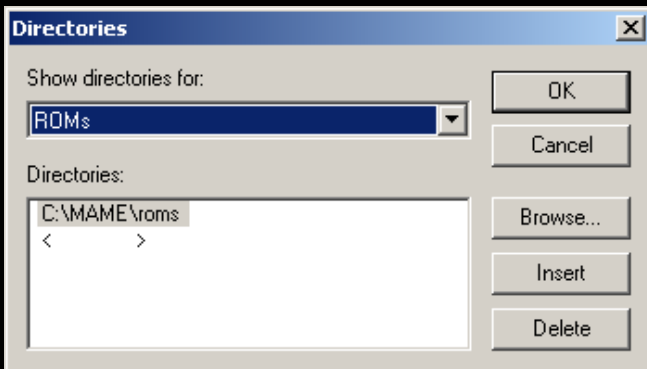
by Rob Maerz

SETTING UP MAME

Here's a scenario that occurs often. A gamer downloads the MAME application software, downloads the game ROMs and when they launch the game they get an error similar to the one show here to the right:
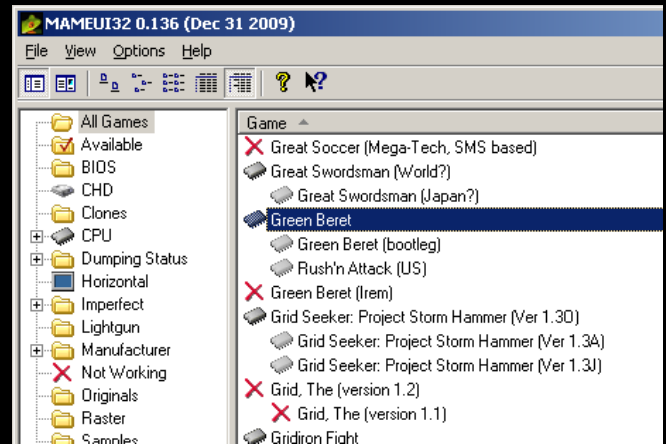
Let's take a step back and verify some settings. First, you need to tell MAME where the ROM files are located:

In this example, all ROM files *must* then be stored in the C:\MAME\roms directory. Additionally, the ROMs must remain in zipped format and the filename unchanged. MAME looks for a specific file name when launching the respective ROM.

Next, you *must* make sure that you have the parent ROM in the ROMs directory before you can run child ROMs. You can determine parent and child ROMs by changing the view in MAME UI to "Grouped": select "View" from the menu bar and then select "Grouped." The games will then be displayed similar to a directory tree on your hard disk.

The game Rush 'n Attack is a great example. In order to run this game you will need the Green Beret *and* Rush 'n Attack ROMs stored in the ROMs directory.
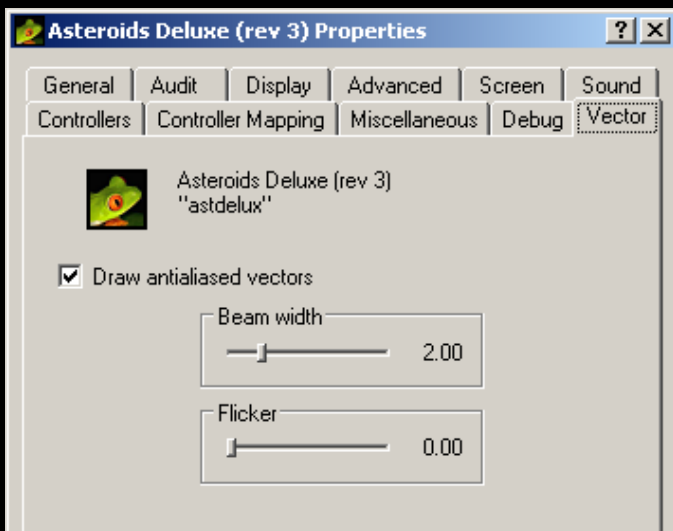
Game on!

ADD VIBRANCY TO VECTOR GAMES

By default, vector games just aren't vibrant when played in emulation. But, there are some adjustments you can make that will brighten up those dull vector lines.
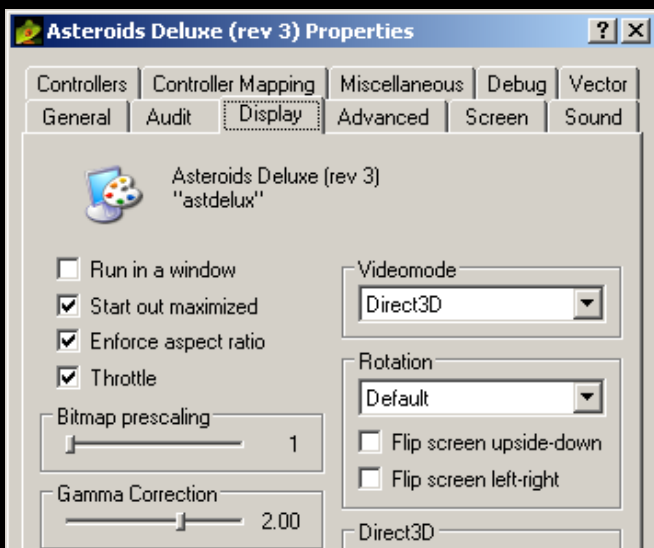
One change you can make is to the beam width. By default, the value for this setting is 1.0. Let's change it to 2.0.
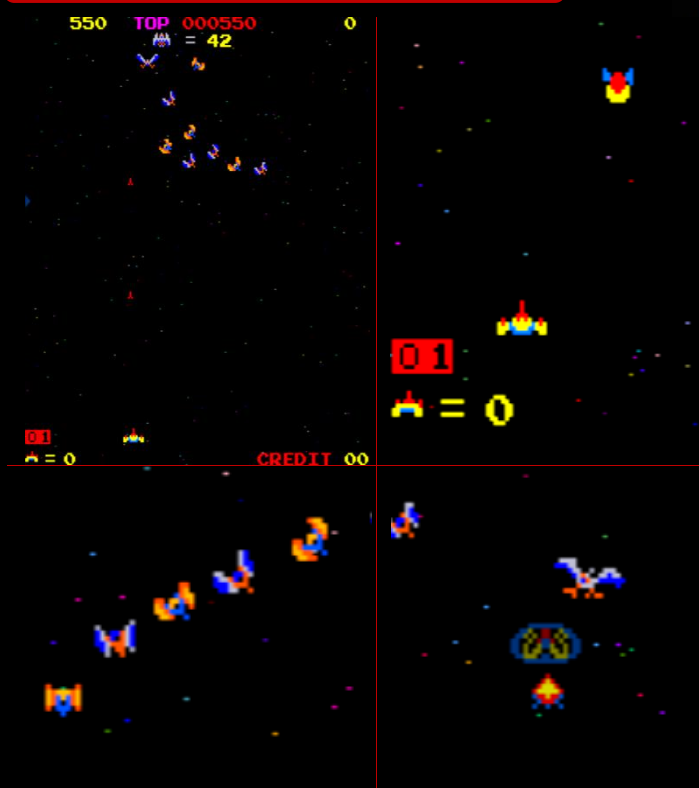
Another adjustment that can be made is to the gamma correction. By default, this value is 1.0 as well. Let's change that to 2.0 and see what happens.

Here is Asteroids Deluxe shown using the MAME default settings:

Here is Asteroids Deluxe after making the changes to the beam width and gamma correction:

Space Firebird is an often overlooked slide 'n' shoot released by Nintendo in 1980. There are some interesting twists that distinguishes this title from others in the same genre: the ship will arc upward when moved to the extreme left or right and your ship will move vertically destroying everything it touches by using the warp button. Fans of Galaxian and Phoenix will love Space Firebird.

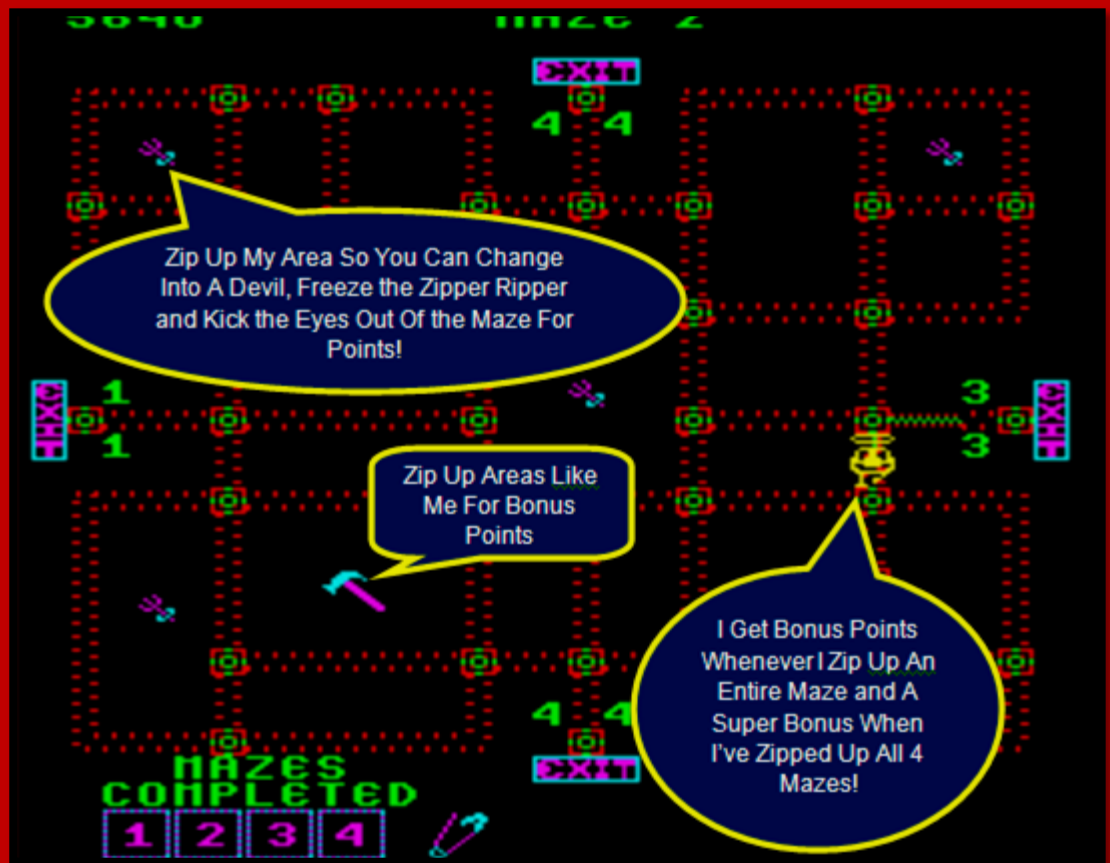# Strategy Session

Pepper II (Arcade)

by Rob Maerz

An angel of a game with a devilish twist, Pepper II is a gem released by Exidy in 1982. Pepper II combines the zipping of Amidar with the "turn the tables on the bad guys" aspect of your typical maze game. You'll be hard-pressed to find the Pepper II cabinet in an arcade, so most likely you will have to play it in MAME or the cartridge ported to the ColecoVision. I would highly recommend playing with a 4-way joystick in order to navigate the mazes with precision as using an 8-way can take you places you had no intention of going.

What differentiates this arcade classic from others are the four mazes per level. You need not complete Maze 1 before moving onto Maze 2 nor do you need to work on mazes in sequential order.

You control Pepper and the object is to zip up the areas of the maze avoiding the Roaming Eyes and the Whippersnapper. As you move Pepper along the tracks of the maze, the tracks change color indicating that you are zipping up an area. If you retract before the area is zipped, you

will be unzipping the area instead. So, the strategy is do not unzip unless you have to, which normally is when you are trying to avoid the Eyes or the Whippersnapper.

Pepper is always the first character to appear in a maze. A few seconds later four Roaming Eyes will appear one by one with the Whippersnapper not far behind. The Eyes roam about the maze and try to collide with Pepper and you will then lose a life. The job of the Whippersnapper is to unzip the tracks around areas that you have not yet entirely zipped. The Whippersnapper moves much faster than the Roaming Eyes and colliding with him also results in death.

There are two faces of Pepper: an angel and a devil. Normally Pepper is an angel. Each maze contains five pitchforks: one in each corner and one in the middle. When you zip up the area containing a pitchfork, Pepper turns into a devil and can then touch with the Roaming Eyes for points and temporarily kick them out of the maze. Additionally, when Pepper is a devil, the Whippersnapper is frozen within the maze.

Each maze also contains an object in an area that when zipped earns bonus points. For example, in some mazes you will find a hammer and in others a safety pin. When you have completely zipped a maze you will earn additional bonus and move on to the next maze of your choice. When you have completely zipped all four mazes in a level you will earn a Super Bonus. You then move onto the next level and repeat the process but the game will

increase in difficulty: the tracks will disappear (but, over time, you will have memorized the mazes), the Roaming Eyes increase in speed and bonus items will be available for only a short period of time.

Unfortunately for Exidy, Pepper II was an underappreciated game. But fortunately, classic gamers have a means to discover this gem and its depth in strategy and game play.

Now there are important things to remember:

- You need not complete a maze before moving onto another
- You will unzip if you retract before the entire area is zipped
- Pepper is always the first character to appear in a maze
- When Pepper is a devil, the Whippersnapper is frozen on the screen

As you complete each level and the game progresses in speed, you will find that chasing after the Eyes is a low payoff activity. When you zip up areas containing pitch forks, your best bet is to use that as an opportunity to zip up other areas while the Whippersnapper is frozen. Consider it a bonus if you happen to collide with Eyes in the process. The points you want at that point are the bonus items in each maze, points awarded for completing a maze and the Super Bonus when completing a level.

Because Pepper is always the first character to appear in a maze, you can always escape to another maze if the Eyes or the Whippersnapper are closing in on you. Whenever you exit to another maze, you increase the amount of time that Pepper is in a maze sans bad guys. So, one of the strategies is to bounce from maze to maze zipping up areas without actually completing a maze.

As the game progresses in speed, obviously you need to complete each maze as quickly as possible. And what is the best way to complete a maze as quickly as possible? Zip up multiple areas quickly!
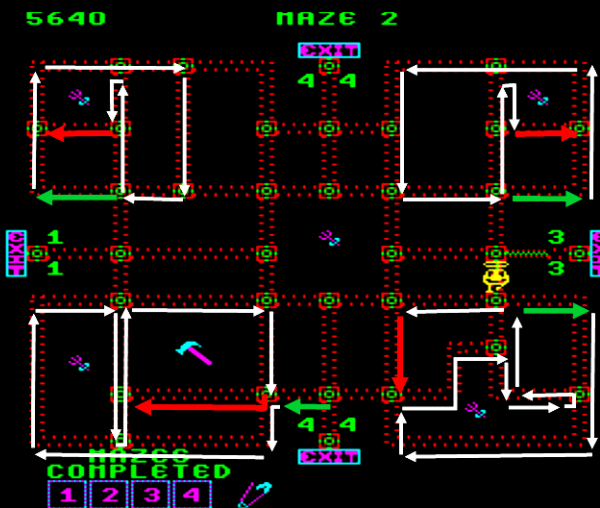
Here are some suggestions for navigating Pepper around mazes for rapid zips. With repetition, you will discover your own patterns for zipping up

multiple areas. Green is the starting point and red is the ending point for each pattern in the screen shots below.

Maze 1: Zip up five areas in bottom left corner

Maze 2: Zip up areas in all four corners

Maze 3: Zip up six areas in the center of the maze

Maze 4: Zip up three areas in bottom left

Maze 4: Zip up four areas in center of maze

Strategy Session

Super Cobra (Arcade)

by Robert T Mruczek
Star Wars classic arcade marathon champion
Scramble (Konami) 3-ship champion
Super Cobra (Stern) 5-ship 2nd place

Super Cobra is a title that I took an immediate liking to, having found its predecessor Scramble captivating. The difference in skill set was apparent – Super Cobra was much harder all around. Twice the number of stages with stationary and moving objects that fired back at you and some really difficult maneuvers to execute along the way made Super Cobra one of the best and most challenging arcade game sequels.

When you first played the game, even "experts" on the predecessor title had to admit initial defeat and that many more quarters and long hours of practice were needed before we could finish the first loop, let alone go further. And I cannot begin to describe the look of jaws dropping when at the very beginning of the second loop the tanks (all of them) started to fire back. Well THAT was a wakeup call if there ever was one!

After nearly thirty years of practice I am the second best player in the world with 233K reaching the 4th loop, 8th stage. Don Hayes is champion at 309K reaching the 5th loop, 10th stage. Since clearing a loop grants an extra ship and a chance at another 50-55K before things get harder again, I'm always in striking distance of Donald, and in great company as he is a most respected and renowned player.

THE BASICS

Like Scramble, the fuel runs out faster during the second loop in Super Cobra, and faster still in the third loop where the rate remains the same thereafter. Unlike Scramble, there are many opportunities to replenish fuel.

I prefer to use the same "crop-dusting" tactic that I use in Scramble for Super Cobra: flying very close to the ground targets and shooting them head-on or bombing them if possible. There are, in fact, only a few areas in the game where I am not that close to the ground targets. With most of the points being closer to the ground it is generally safer there except in a few key spots.

Learning the arc of the bomb drop is critical as is learning how long it takes for your next bomb drop to be ready. There is a lag between successive drops which you tend to notice heavily in stages 4, 5 and 7 predominantly though if you are not careful stages 8 and 9 as well, to some degree.

As is the case with the "maze" sequence in Scramble, there are times when keeping your ship as far "ahead" of the scrolling as possible (pushing joystick to the right) is in your advantage. There are a few times when pulling back is advisable. And there are also key points where you need to transition between the two.

As with Scramble, there are multiple approach methods and tactics: some inevitably work better, are safer or provide the most points. I believe that my own method is the optimal hybrid. I'm more aggressive than Don in some spots and more cautious in others. But whichever method you adopt, accuracy and timing of bomb drops is key.

LONGEVITY

Protecting your ship is your top priority more so than points. Unlike Scramble, Super Cobra is a limited duration game. In Scramble the fuel run out in the third round is intense, even more so in the Stern version, but completion of a stage is always do-able in the Konami version, and mostly do-able in the Stern version.

In Super Cobra the same cannot be said. While it is possible to complete the entire first loop on your first life, it is impossible to complete the second loop without losing at least one life in the eleventh screen (the "booty stage" as it is referred to by players). And in the third loop you inevitably must

lose a minimum of two ships to complete the stage: one in the maze and the other in the "booty" stage.

Although you gain a ship every stage, you are losing more ships than you gain later in the game, so death by attrition is inevitable. Based on a 5+1 setting (5 ships to start, extra ship at 10K) here is the best you can achieve in the game (in theory) assuming you only lose ships due to fuel run outs that are unavoidable:

Loop One - finish on your first ship with six ships in reserve
Loop Two - finish on your second ship with six ships in reserve
Loop Three - finish on your fourth ship with five in reserve
Loop Four – finish with four in reserve
Loop Five – three in reserve
Loop Six - two in reserve
Loop Seven - so I am clear, you are on an active ship at the start of this stage with two ships in reserve.

You can lose a ship in the tenth screen, leaving one in reserve, lose a second ship in the booty stage and then finish Loop Seven on your last ship, which means...

Loop Eight - start with an active ship and one in reserve

Based on what must happen, and assuming you do not die except where indicated, you can reach as far as the end of the tenth screen in the eighth loop and that is as far as you can realistically go in this title.

Now, there IS a lone fuel tank in the "booty" stage, but it is so incredibly difficult to bomb AND survive the climb that follows without crashing or getting shot that most players avoid trying for this. And even if you pull it off, it will not give enough fuel to finish the third loop from that point anyway, and I believe it does not for the second loop as well (I think Don Hayes came to that conclusion as well).

With an estimated 57-63K per level depending on aggressiveness, accuracy and also luck with the random value objects, the maximum theoretical score on this title is approximately 456K-498K. But, Don and I believe that 460-480K is about where we would reach if we even got that far into the game. And considering how few games we have played that penetrated into the 4th level or further, it is highly unlikely that we, or anyone else, would ever

get that high. Don reached the fifth loop only one time - ever. We both reached the fourth loop at least 3-4 times each already, but reaching the third loop (115-185K) is easy for us now based on our present day skill set.

Now for tactics per stage adjusted for what "Loop" you are in. This is based on the STERN version of the game. The KONAMI version is truncated in several spots and while generally easier it offers fewer points. Most notably, the entire "city" sequence (stage 9 which is reminiscent of stage 4 in Scramble though many times harder) is completely missing in the Konami version Super Cobra except for the opening segment.

STAGE ONE

This is a simple stage with lots of ground targets and plenty of room for missing fuel tanks. The very beginning is semi-tough because of the entrenched tanks which, starting with the second loop becomes a problem spot.

You will realize that in Super Cobra being ultra aggressive does not necessarily yield the highest points. It is possible to finish the stage while shooting every object and still have far less that 7K when you finish the stage, while at other times you are at or near the 7K mark. SO focus more on accuracy and quantity of targets destroyed and worry about points only when you lose your last ship.

STAGE TWO

This is where things start to get tricky and where tight maneuvering is first experienced. The very beginning of the stage is perhaps the hardest due to the entrenched tanks past the "squeeze" between the rocks. Accurate bombing is critical here.

Be careful when objects turn into projectiles that travel towards you on an arc-path. Not only can they launch from directly underneath you but they can block your shots against ground targets.

If you are careful and aggressive you can finish the second stage on your first life with a score of about a low 13K.

STAGE THREE

This stage is very tricky. Groups of moving targets come right at you, some faster than others, and their movement paths, while predictable and controllable, are very unforgiving. So the key here is to retain control over each incoming group.

I prefer to start the stage from the far left and then get aggressive after that, staying low to get the ground targets (accurate bombing is critical). It is possible to pull a "fake" and make an incoming group fly above you thus granting a brief reprieve, so use such tactics sparingly and carefully.

If you are really good you can finish this stage with between 21 and 22K on your first ship.

STAGE FOUR

The horizontal moving targets are a little tricky. Amazingly you can be flying directly towards them and while rapid firing they are somehow avoiding your shots. Unbelievably, the timing of their sine wave pattern/path can coincide with the breaks in between your shots if you are not careful, so never take them for granted. And do not let them sandwich you or get on top of you either!

Once you enter the second loop things get much harder due to the shooting tanks, so accurate bombing is critical as is "crop-dusting" the ground targets whenever feasible.

The hardest part of stage four is the climb from the bottom ground targets back to the top while simultaneously maintaining control and dispatching of the moving targets. It is harder still when the tanks are firing at you. Immediately after reaching the crest you are faced with some more critical and immediate bombing of tanks that fire (second loop) followed by a huge drop to the ground targets below (where tanks in front are trying to shoot you down). A second difficult climb comes near the end which is not bad providing you are accurately bombing the entrenched tanks.

I've finished this stage on my first ship with a little over 30K.

STAGE FIVE

For years my friends and I have been referring to this stage as the "bat cave". It is the only stage where enemies fall downward.

Don Hayes and I differ widely in how we tackle the stage. I prefer to stay low and take out the ground targets, killing "bats" that get in my way, he prefers to take out the "bats" up top and bomb the ground targets as needed. There is no right way to do this so choose the tactic that you are most comfortable with.

If you are really, really good at the game, it all comes down to a few key trouble spots. This is the first stage that has one. Early on in the stage a very tight upward "squeeze" needs to be negotiated and what makes it exceptionally difficult is that there are overhead enemies that drop downward - enemies that you absolutely have no chance of shooting unless they drop down in front of you.

There are three outcomes here: shoot the "bats" as they drop down, fly quickly past them and hope they miss you, or die trying. I wish I could tell you that I have an iron-clad way of making them drop down. After all these years I do not, but more often than not I can get them to drop down or have a good chance at getting past this point unscathed. But every now and then, disaster strikes.

The rest of the stage is pretty straight forward. If you stay low, just be mindful of the "bats" dropping down. You can only take out so many targets at once as there is a miniscule "lag" between shots when you have exhausted them all in rapid succession between the bullets and bombs. This stage (more so than any other) is where you can

experience this "lag", especially near the end of the stage.

A good first ship score at this point is between 35 and 36K but I have had up to 37-38K when everything worked out well.

STAGE SIX

A new enemy to deal with: the moving tanks that also fire. This stage is extremely cut and dry - a near-pattern. The key is accurate and strategic bombing of the tank targets.

One behavioral aspect of these tanks that you can manipulate to your advantage is that only one tank can move at a time. The layout of the board is such where you can typically take out all except maybe one or two of the targets if you are careful and accurate.

There are two problems spots involving accurate bombing into a trench where a miss can be extremely costly, but as is the case with most titles, practice makes perfect. Keeping your ship to the far right (ahead of the scrolling) is to your advantage before these key drop points, if for no other reason than to give a second chance to take out the ground targets at the very bottom.

Except for the faster fuel run out in loops two and three, stage six behaves the same way no matter what loop you are in as the tanks always fire.

A good first ship score at the end of this stage is between 38 and 40K but I have had as much as 42-43K.

STAGE SEVEN

Here you face the fireballs, like stage three of Scramble, only these are more difficult and you need to (starting with loop two) avoid tank fire. As is the case with most of the game, the big points are down below so you need to really hug the ground and "crop dust" the targets while avoiding the fireballs and any tank shots.

For starters, I recommend that you are already pushing your joystick far to the right and that you are already hugging the ground with your ship.

As with Scramble, your biggest fear is getting sandwiched when trying to climb over a hill. Thus, pulling back is sometimes a better strategy for this stage -especially when you are about to climb.

Overall this is a fairly easy stage when all goes well, but on occasion the fireball that trails you is relentless and complicates matters.

There are not that many points to collect in this stage. Aside from stage six this is probably the lowest scoring stage of all, not factoring in the "booty" pickup sequence.

A good first ship completion score is around 44K although I've had as high as 47K.

STAGE EIGHT

This is the first of the three most difficult stages in the game: the "Saucers" (eight), the "City" (nine) and the "Maze" (ten). It is also one of the most point plentiful although I have yet to meet a player so skilled that they can get nearly every target both on the ground and in flight. I don't even think that this is possible, to be honest.

Overall, this is a stage that is very challenging and one that will definitely wake you up should you let your fuel gauge get too low. By the third loop this stage is a real concern in terms of fuel.
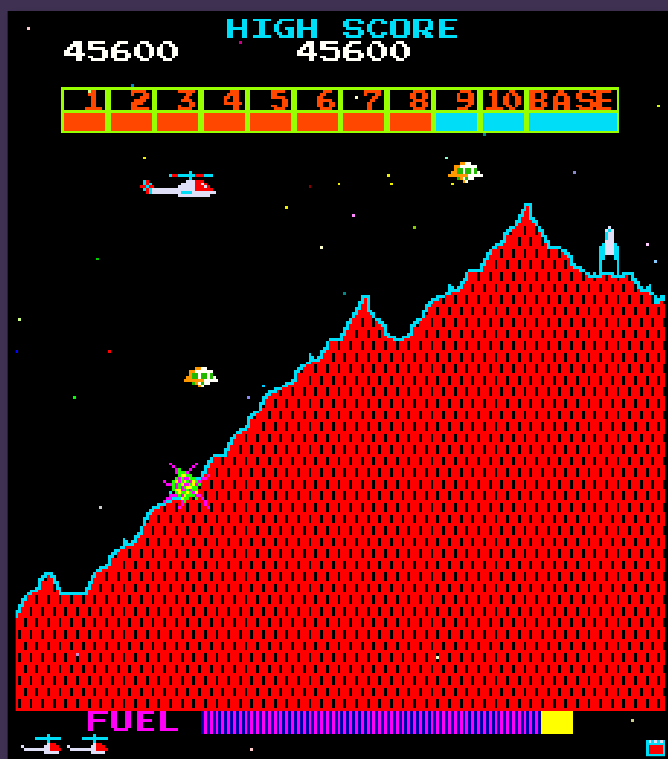
The beginning of the saucer stage, in my opinion, is where you need to maintain a safe distance from the saucers (which fire at you, unlike their stage two counterparts in Scramble) while strategically bombing as many key ground targets as possible (fuel tanks, mystery containers). Keep in mind that even in the very first loop the tanks MIGHT fire upon you so never take that for granted. Curiously, in loop two, they do not all fire - instead they have the same general propensity that they MIGHT fire upon your ship. This is a great relief, to be honest.

The first initial dip in the stage is a bit of a trap as it is difficult to pick yourself back up and safely enter the next phase of this stage. I recommend instead trying for a general bomb attempt at a ground target and instead concentrate on avoiding enemy fire above.

Concurrent with the second dip, start pushing forward as a long string of ground targets is present and are worth a lot of points. Just be extra careful in case a sneaky saucer fires a bullet at you very low and through the targets. Generally, stay under the saucers, and be extra careful as they sometimes try to shoot the center of the ground targets that you are flying level with.

Towards the end of the stage is a long sequence of ground targets rich in points but the climb to safety afterwards is difficult and you had better know when to start the climb else you can easily get trapped by the saucers and/or their firepower.

The top of this hill you must climb is barely enough for you to fit your ship through. Making matters worse, this is the second problem spot in the game where you are faced with targets that you absolutely cannot hit yet which can destroy you. If you are not careful, or if you have some incredibly bad luck, a saucer may decide to hover immediately over the gap that you must squeeze your ship through and fall down onto you in the process. And even if you should bypass this section, be mindful of saucer fire coming from the right as you have very little room within which to maneuver.

The final ground targets come next and it is impossible to get them all without getting shot, so go for two at the very bottom by dropping bombs from above and hoping that a saucer does not run into one of your shots.

A good first ship score at the end of stage eight varies widely. You should definitely be over 48-50K at a minimum, and while I have never pressed for maximum points, it is possible to reach midway to the 60K mark.

STAGE NINE

The most difficult stage in the game, also known to some players as "The City," as it is reminiscent of stage four in Scramble.

From as early as the first loop the tanks fire upward and the rockets turn into projectile missiles at point blank range and also come at you from both in front and behind - even from off-screen and on top of you, making this stage extremely perilous.

The ground targets are often deeply entrenched making accurate bombing critical. There are simply too many targets to get them all, and many of the rockets will turn into projectiles before you can reach them.

Tank fire is your most devastating foe if you are careful not to put yourself into a poor strategic position, Fuel tanks are plentiful though often entrenched and protected.

Your second greatest concern is the projectiles. Whatever you do, putting yourself too close to a rocket will likely result in a quick loss of a ship. Be mindful of this. Same for pulling back too far to the left on the joystick which may result in a projectile hitting you from behind or even coming down from overhead.

The toughest parts of the sequence are when you are pushed near the top of the screen and have little maneuvering room. Accurate bombing of the tanks is critical. There are a few pockets of several fuel tanks here and there so if you are careful fuel will not be a major concern until the third loop.
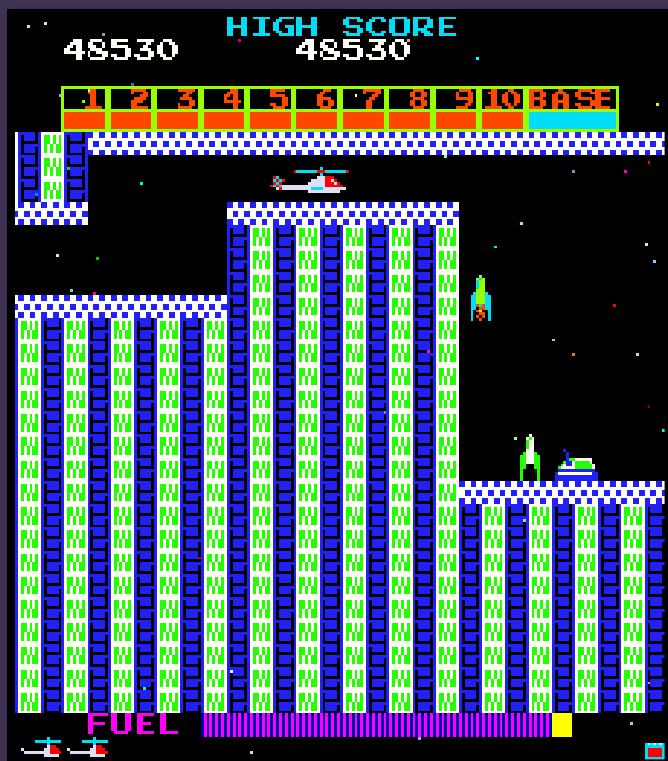
Do not take anything for granted. If you are in a bad position with respect to a rocket or tank, they WILL fire upon you. The rocket can turn into a projectile either in front of or from behind you, and when it comes from behind you have no prayer. So, do not stay too close to the rockets even near the very end of the stage unless you are shooting them head on.

It is possible to finish this stage anywhere from 55-62K on your first ship, but the higher finishes are often the result of foolhardy game play. In this stage, I recommend safety above all else. But if you can pull off both safety and point pressing at once, my hat's off to you!

STAGE TEN

And now for the third of the three hardest stages: "The Maze". This stage is MUCH harder and complex than it's Scramble counterpart. The maneuvering is much harder and tighter plus you have to deal with rockets launching, tank fire and inevitable fuel run out concerns.
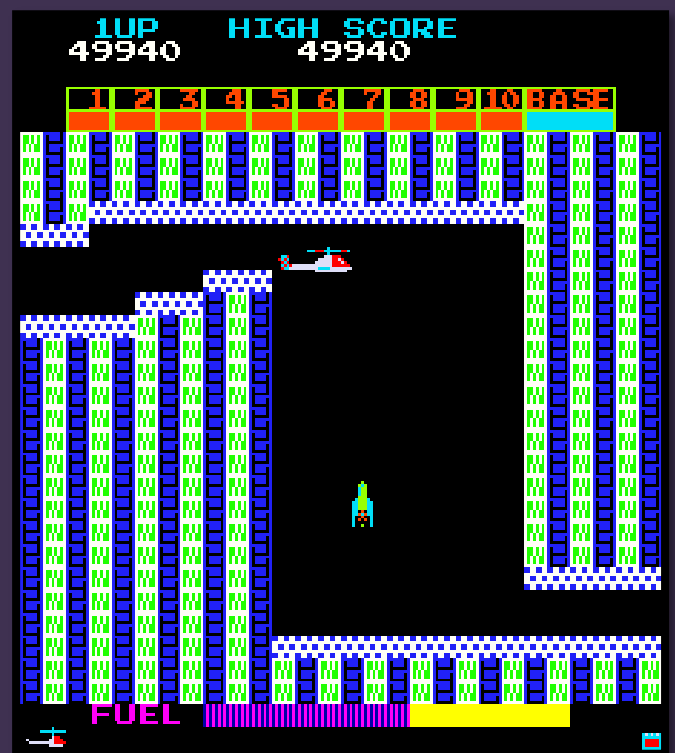
The very first big drop in the game is perhaps the most unfair aspect of the game. At the bottom of this drop, a tank which fires directly at where you enter the chamber coupled by both fast and slow launching rockets makes this a veritable death trap. You cannot bomb the tank and therefore must deal with the firepower. The spacing of the rockets, unfortunately, greatly hampers your ability to glide downward to the safety of the next section. If all three are launching and firing, kiss your ship goodbye unless you get really lucky.

Navigating the rest of the maze is tricky enough, but a new problem presents itself once you have a sharp climb upwards. Rockets that block your path often launch before you can shoot them and then can travel up slowly, making it difficult for you to climb without hitting them if they launch a moment before you start your climb. Faced with a tank that fires down below and you have a very dangerous climb indeed.

The final third of the maze presents one additional problematic area. After negotiating a series of "steps" there is a sharp drop and a single rocket below. If the rocket launches early then you are forced to pull downward in between the wall on the left of you and the rocket, and this is a VERY tight squeeze indeed. You have very little margin for error. If you get lucky and it launches late then you can simply fly over the rocket and easy yourself downward out of harm's way.

The rest of the maze stage is easy. But, starting with the second loop you will run out of fuel by the middle of the "booty stage" shortly after the snapshot in the fifth enclosure and there is nothing you can do to prevent this.

Starting with the third loop you will lose a ship both in the maze and a second loss in the "booty" stage, both due to fuel run out. So even if you do not die anywhere else in the game, starting with the third loop you will begin a slow decline of ships, losing at least two, gaining no more than one if you complete that loop.

In fact, the fuel run out in the "maze" stage is so severe by loop three that if you die in the first half of the maze prior to where you naturally run out, you will STILL lose another ship at that same point later on in the maze stage, and then a third ship in the "booty" stage that follows.
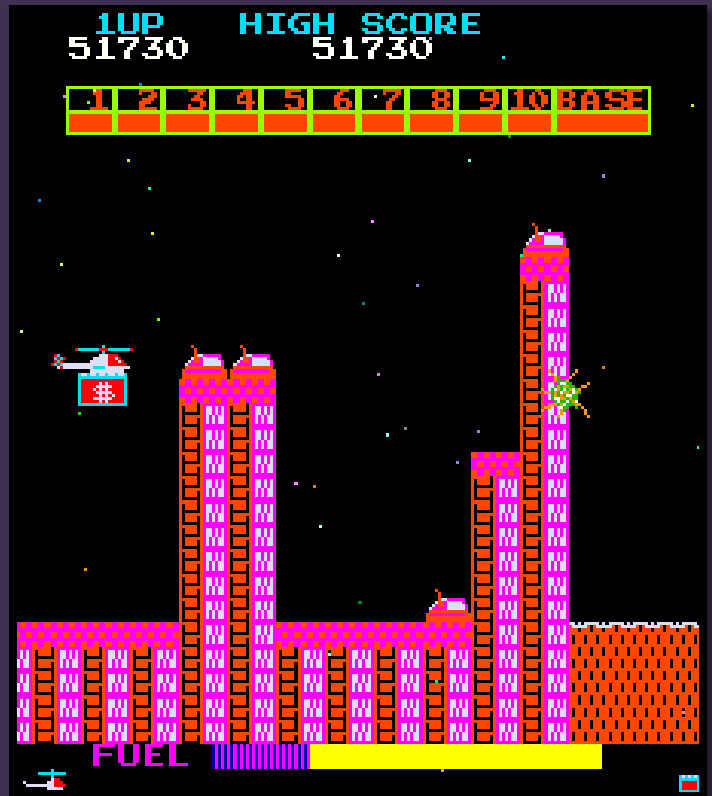
BOOTY STAGE

Although this is the shortest stage in the STERN version of the game, it is not a cakewalk. The goal is to survive to the end, pick up a container and carry it to safety without being shot, running into walls or running out of fuel. Oh yes: and also not allowing the "booty" to get destroyed in the process!

That said, your main concern are tanks that fire and projectiles launching from all around you. The tanks

are relatively easy to deal with, and while you cannot bomb most targets in this stage, you can at least strategically take out a few critical ones...with one exception.

There is a single fuel tank in this stage. You do not need the extra fuel in loop one, and even if you do somehow manage to shoot it in loop three, you still will run out of fuel prior to picking up the "booty". Remember a fuel tank does not replenish all your fuel - just some of it. It's best to avoid this red herring target entirely and concentrate on avoiding getting shot.

When you are approaching the drop down towards the "booty," a tank on a hill is firing at you and you can easily drop down and shoot it. You also have a chance to drop bombs and take out the other ground targets guarding the "booty".

Once you pick up the booty you cannot drop a bomb or you will destroy it. Shoot any incoming projectile, avoid tank fire and the buildings that follow. Carry the booty to safety and you gain an extra life after some celebratory music.

And then prepare to do it all over again!

ADVANCED PLAYER TACTICS

- Learn the trajectory of the bomb that you drop and exactly where it emanates from your ship. This will help you in emergency situations in the stages where a projectile is potentially going to launch from below you in "The City" stage.

- In an emergency situation it pays to learn how to "bomb up". In the saucer stage near the very end, you may have to (in order to protect yourself) throw a bomb upwards by pushing up on the joystick with bomb simultaneously then pulling down on the joystick. This is a last resort but may save a ship if you are faced with this scenario.

- You need to memorize the board layout, plain and simple. Also memorize all the "sweet spots" such as where you can shoot tanks through a hill, where you can temporarily hover and drop bombs ahead to clear the way, and also where you MUST be pushing right on the joystick to get ahead of the scrolling versus when you have to pull back.

- Your ships are more important than points once you start reaching loop three in the game. Nothing is more disappointing than starting the third loop "maze" sequence with just one ship in reserve as you already know you can't possibly make it into the fourth loop and a chance at perhaps 50-55K more in score.

AFTERTHOUGHTS

Although Don Hayes is the top dog at the title, reaching the end of the fifth loop but not completing it due to fuel run out (and he could have done so had he not lost a reserve ship at a critical point in the fifth loop), I have the unofficial record on having the best "start" to my game.

My best start was completing the first loop on my first life, and then reaching the fuel run out point in the second loop while still on my first life. I kept my second ship going until the third loop's "Maze" stage's first big drop and then lost every single ship thereafter at that point due to worst-case scenario of the tank firing and both rockets launching at the same time over and over again.

I had my active ship and six ships in storage coming into Loop 3 Stage 10 with 170K+ and lost every single one of them back-to-back. And I have never come close to getting that far with so few losses again. Oh well…

Up until 2005 or so the world record was around 198K on the title. Now my average game is in the 170-190K range approx 75% of the time and between 115 and 125K the remainder of the time. It is easy to clear the first loop and relatively easy to enter the third loop. However, clearing that loop requires at least two ships in reserve to at least make it into the fourth loop, and at least three or more in reserve to make it through the fourth loop and into the fifth which is as far as Don reached.

I seriously doubt that anyone, Don or myself included, will ever pull off a "perfect game" where you only lose ships due to mandatory fuel run outs. If someone does that, then regardless of the score that performance is likely the world record set in stone. For now, it is Loop 5 and 309K by Don Hayes with me nipping at his heels reaching loop 4 and 233K. Reaching Loop 5 with between 240-250K is about where I project myself one day, and it is a matter of not screwing up the "easy" 50-55K at the beginning in order to catch Don one day. And that is a big if, but a goal of mine. And maybe one of yours as well!! 🚁

CLEANING JUNIOR

by Michael Allard

Finding classic consoles in flea markets, yard sales, auctions, Goodwill and Salvation Army stores is like Christmas morning for any classic gamer guru. But more often than not, it is where a good find was sitting before being spotted by a collector: basements, closets, attics and storage buildings (and I personally have found one in an old barn) all of which can place a once enjoyed system battling against enemies of dust, bugs, moisture, and other elements bent at destroying it. Once in a rare occasion will a well-cared for system pop-up but it is uncommon and very costly.

Most reading this are probably asking, "Why take the risk to clean a console if it works?" Well, let's look at it this way: there is no telling what a system has been through before it was found by a serious collector. The previous owner (or owners) could have been a heavy smoker, had issues with bugs, and may have remodeled their home without taking the time to make sure that *everything* was protected and out of harm's way.

Bugs, especially roaches, will hide in electronics and can literally destroy them from their wastes and have been known to eat at the electronics inside. Smoke from a house fire, cigarettes, or other sources, will drop residue on the system's plastic and inner workings. These will put off an unpleasant odor that can cause health issues for some. The paint is not too much of an issue other than taking away from the cosmetic appearance.

So, how can a system that has decades of collected debris be cleaned back to an almost new appearance? We will touch on that now. In this edition we will use the Atari 2600 Jr console. If it goes well, other classic consoles will be discussed in future editions.

But before any cleaning can be done, let's get some items we are going to need. I recommend having a separate storage container or toolbox that will hold these items in one place for future use. The items recommended for cleaning a system safely are listed below:

- L.A.'s Totally Awesome
- #2 Phillips-Head Screwdriver
- Microfiber Dish Rag or Hand Towel
- Sponges (With Scrub Pad is optional)
- Toothbrushes (Soft, Medium & Hard Bristles)
- Cardboard Box
- Q-Tips
- Can of Air
- Emery Board (various grades and thickness)

Most of these items can be found at Dollar General, Dollar Tree and Family Dollar outlets for about $1 each. The cardboard box can be a box that was used for shipping and it will have a purpose.

L.A.'s Totally Awesome is recommended because it doesn't contain bleach, ammonia, or other chemicals as found with more popular cleaners. I have personally seen this product remove about 20 years of tar from cigarette smoke off my grandmother's white walls upon contact so I don't doubt its cleaning power when it comes to removing years of grime from a game console. Keep in mind that this cleaner is intended to be used on bare plastic and not on game cartridge labels. Using this on cartridge labels without diluting it first will fade the labels. So far, I have not had any issues with labels on consoles. Be sure to use this cleaner in a ventilated area.

The microfiber cloth will have an interesting purpose. It will be similar to a polishing cloth during a final step. It can also be used to help clean areas that are otherwise more suitable for sand paper. Sand paper is OK but I would use it as a last resort.

Toothbrushes will be used for cleaning hard-to-reach areas like grooves and vents.

The screwdriver will be used for disassembling the console. For those that are not usually good at taking things apart and putting them back together again, have no fear. Each console will be taken apart step-by-step and with pictures to show the entire process.

The Q-tips will be used for cleaning the cartridge connector boards. Years of use and not being cleaned can leave a build-up of carbon residue on

the edge connector's contact plates. The Q-tips will make cleaning these a breeze.

That leaves the cardboard which we will now get started with. If you are using a cardboard box that was used for shipping something, make sure to use a section that has no kinks, creases or bends.

The cardboard is used as a cartridge port cleaner. The cardboard is a little thicker than the cartridge boards but it will give enough under pressure that it will fit in the cartridge ports and still apply a little pressure to the pins in the port. The texture of the cardboard will act sort of like sandpaper but it will not grind on the pins.

Cardboard will need to be cut to the size of the cartridge port for the console being cleaned and cut to about the length of a game cartridge. Below are the sizes of the cartridge boards to use for making cardboard cutouts:

- ⚴ Atari 2600 – 1 3/8"
- ⚴ Atari 5200 – 2"
- ⚴ Intellivision – 2 1/4"
- ⚴ ColecoVision – 1 9/16"
- ⚴ NES – 3 5/8"

Be sure to mark in the middle of each cutout the system it is for so there is no mix up. These can be used until a replacement is needed. These are usually good for about two-dozen cleanings. Be sure to replace them if the ends have a thick coating of build up.

Disassembling the Console

For some people, taking apart a console may not be an easy task. And in some aspects it isn't. Hopefully the images included with this tutorial will aid in making the task a little more comfortable and understandable. If spare, non-working, consoles of a similar system (e.g.; the 2600 in this article) are available then use that to practice while following these directions.

Screw Locations

First thing we need to do is completely disconnect the console from the TV, the AC Power and remove any cartridge and controllers. Using a clean area that is comfortable for you to use, set the console with the bottom facing you.

Most classic consoles have between five and six screws holding them together. Others will have more or less depending on their design (which we will cover in a future edition). The 2600 Jr has five total as shown in the picture below.

Using the #2 Philips-head screwdriver, remove these screws: "lefty Lucy, righty tighty." In other words, rotate the screwdriver counter-clockwise to remove the screws. Once all the screws are removed turn the console back over.

Removing the Top

To remove the top, some consoles will allow you to simply lift straight up while others will require controllers to be fed back through the openings in the top shell (e.g.; Intellivision). The 2600 Jr in this tutorial is a little different. The front is held in place by small tabs that keep the front edge clamped together. To remove the top without breaking these as much as possible, it is recommended to start with the rear of the unit where all the connections are.

WARNING: The PUSH buttons have a flex-circuit under them that is attached to the main board sitting in the bottom shell. Removing the top shell too quickly may damage the flex-circuit!

Removing PUSH Button Flex-Circuit from Main Board

Lift the rear portion of the top shell up first. When resistance from the front edge of the shell is felt, gently continue to raise the top shell until it gives.

There are times that the flex-circuit under the PUSH buttons will disconnect itself. Other times it won't. If the flex-circuit did disconnect itself then set the top part aside for now. If it did not, set the top shell upside-down and next to the bottom shell then disconnect the Flex-circuit from the main board by gently pulling up on the ribbon connector at the connection point on the board.

Removing Buttons From Top Shell
The 2600 Jr has four plastic button covers that can be removed for deep cleaning. This may be required to return the action of these covers back to their original working condition, especially if a liquid like a soda has been spilled on the console.

These buttons are a little tricky because there are two clamps holding these to the top shell. A small jeweler's flat-head screwdriver (or a small flat-head screwdriver) can be used for help. Personally, I use my fingers to avoid damaging the plastic. Too many scratches or scarring can keep these button covers from working properly.
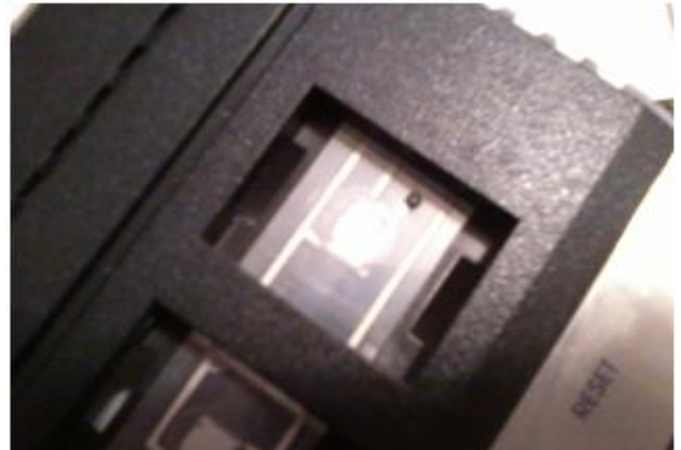

Removing Slider-switch Covers

The Power and TV Type button covers (a.k.a. Slider switches) are identical to each other and their clamping tabs on the left and right side. The PUSH button covers are identical to each other as well but their clamping tabs are at the top and bottom. These tabs are a little stubborn meaning that some force will be required. Starting with the slider switch covers, use a thumb and forefinger to squeeze the tabs together until one or the other gives. If you are using a screwdriver, use care not to scratch the plastic.

The PUSH button covers are a little more delicate. It is not recommended to use a screwdriver on these since the flex-circuits are still present. To remove the PUSH button covers, do exactly the same thing that was done to remove the slider switch covers on the tabs at the top and bottom.

Removing the Flex-Circuit and Main Board
The flex-circuit has a small tab at the RESET button that is holding it in place. Simply tugging at the free end of the circuit will not work without causing some damage. And we want to avoid that.

Tab Holding Flex-Circuit in Place

To safely remove the flex-circuit, start with the small tab that is next to the cartridge port on the underside of the top shell as shown.
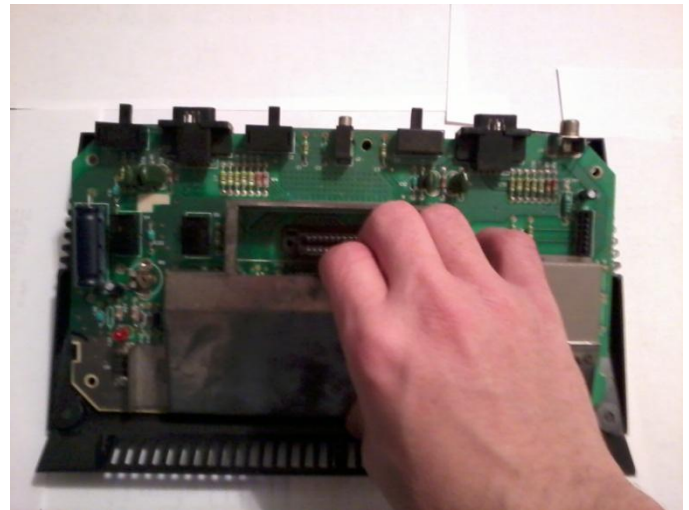

Feeding Tab through GAME SELECT Side

Hold it in place and use your other hand to grab the arced portion of the flex-circuit from the front side of the shell. Pull gently until it is free. Then with the front side (with the chrome strip) facing you, feed the circuit through the RESET portion creating yet

another arc as shown in the photo.

Feeding Flex-Circuit through RESET Side

Removing Flex-Circuit Using Free End

Keep pushing it through until the tab decides to let go. Now the flex-circuit can be completely removed from the top shell by pulling on the free end without causing any damage to it.

Now that *that* is out of the way, the only thing left to remove is the main board from the bottom shell. The 2600 Jr has one of the easiest main boards to remove because the screws that hold it in place also hold the main board in place. This means that there are no extra screws to deal with.

To remove the main board, raise it at the connection end and then from the front end it should come right out. But, be advised that there may be some small pegs that help keep it lined up that, if present, will give some resistance. Once it is removed, set it

Removing Main Board

aside.

At this point, I recommend the following so that the screws and the flex-circuit do not get misplaced or lost. The screws and flex-circuit I put back in the main board as shown below. Again, this is optional. But I recommend putting these in a safe place like a sealed container or something similar if curious children are present. This is for their safety and your piece of mind.
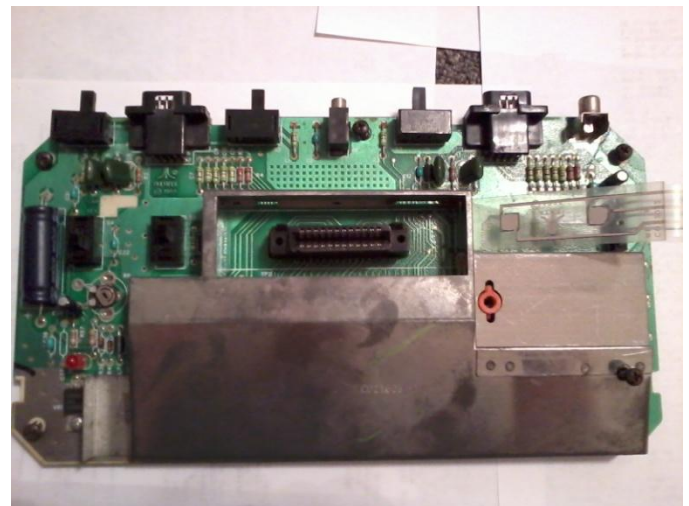

Screws and Flex-Circuit Replaced

And here is an image of the plastics that we are going to be cleaning. You should have:

- ⚔ Top Shell (Chrome Strip)
- ⚔ Bottom Shell
- ⚔ Slider Switch Covers x2
- ⚔ PUSH Style Covers x2

2600 Plastic Parts

Washing the Plastics

Take the plastic parts to where the washing is intended. I normally use a kitchen sink if the parts are not in too bad of a condition. If your kitchen sink has a sprayer installed, this can be used. If one is not present and the console is heavily soiled, I recommend using a shower if available. Whichever area is being used will work, the aforementioned areas are recommendations only.

Spray the plastics completely with Totally Awesome! (or your cleaner of choice). Allow to sit and soak for a few seconds or longer depending on your cleaner. Using the sponge, scrub the top and bottom shells.

Soaking the Plastics

If any stubborn spots are present (like from a sale sticker), the scratch-pad side of a sponge (if present) can be used. But be gentle in using it or it will damage the finish of the plastic. The same scratch-pad side of the sponge can be used to help remove stubborn scratches or markings. A toothbrush can be used as well and might work better since it is less likely to damage the natural finish.

Using Toothbrush to Clean Button Recesses

The toothbrush will work best to remove soil spots from under the buttons and in the raised brand name on the chrome strip. Also scrub the vents on the sides and around the raised lettering marking the rear connections. Repeat this for the bottom shell.

NOTE: If there is concern about damaging the label on the bottom shell, there is a trick that can be done to protect it from getting water damage. Cut a piece of clear shipping tape slightly larger than the label. Start one end of the tape just outside of the label and press firmly in place taking care not to let the rest of the tape to fall on the label yet. Using a plastic card of some kind (credit, debit, gift, etc.) as a wedge, slowly work the rest of the tape over the label while still holding the tape at about a 45 degree angle until all the tape is applied. Doing this will help avoid any air bubbles from getting trapped. Using an X-Acto knife, trim the tape around the edge of the label and remove the excess tape. The label is now protected and has a gloss finish to boot.

Getting back to the cleaning: use the toothbrush to clean the buttons taking special care to follow the grooves and lettering.

Allow the parts to rest for a few seconds longer before rinsing. If a Q-Tip will fit (I haven't found one yet), use it to clean in the deep well around the cartridge port of the top shell. Be sure to clean the insides of the shells as well if a lot of dirt, dust or other soiled spots are present.

Using Toothbrush to Clean Button Covers

Rinsing It All Away

Now that the parts have been scrubbed, it's time to rinse them. Use hot tap water just as hot as you can stand it. The reason for this is it allows the plastic to expand a little and will remove any soiled areas in the plastic's texture. Be sure to rinse both sides of the shells and in any wells (cartridge port, button recesses, etc.). It is advised to use one hand to hold while the other hand is used to feel the plastic. This is to make sure that all chemical is removed. Leaving any behind can cause the plastic to be sticky and/or cause more spots which we don't want. Don't forget to rinse the button covers as well.

Rinsing the Plastics

Drying the Plastics

I recommend using a microfiber hand towel or rag because it has the ability to finish removing any soiled spots from the plastic that might have been left behind. And in its own way, it acts like a buffing cloth without scratching the finish...and it doesn't usually leave behind any lint.

What I usually do to help the drying process go a little faster is I take each part, hold one end with a firm grip and I sling excess water off. I recommend doing this either outside or over a tub or shower...unless you plan on mopping the floor as well. I repeat this for each part and I make sure to hold opposite ends and turn the shells over with each sling. This will also help get water out of any screw post holes. A can of air can work as well, this is just the method I use that works best for me and is a little cheaper on the pocketbook. Be sure to dry the inside and outside of the plastics and check any post holes, including those on the button covers, for water. Use a Q-Tip for drying those if it is necessary.

Drying the Plastics

Checking the Main Board

At this point, take the time to pick up the main board and examine it for anything that may look like bugs, dust, spills, and anything that appears may pose a problem. Some markings may be present on the main board and are expected as these markings are quality control marks during manufacturing.

Either way, a can of air, a very lightly damp cloth (like the one used to dry the plastics) can be used to clean the main board. Q-Tips can be used to get at areas where small electronic components are present. The RF Shield (the aluminum cover surrounding the cartridge port) is to protect the main processors of the console from outside elements. Anything that is trapped inside can be removed by turning the board upside-down and shaking it until they either fall out or can be grabbed. If needed, use needle-nosed pliers or tweezers to get foreign objects.

Cleaning the Cartridge Port

Remember those cardboard cutouts we made earlier? Now is the time to use the one for the 2600. Check the cartridge port on the main board for any foreign objects and corrosion. Use a can of air to blow any dust out of the port.

Using the cardboard cutout, insert it in the cartridge port a few times and take note of the edge of the cardboard once finished for any carbon build up. If this is present, use the other end of the cardboard cutout and repeat the process. Take care not to try and use too more force than what would be used to insert a game cartridge and don't get the cardboard wet to try and get the cartridge port clean.

If corrosion is present, grab the toothbrush and spray the Totally Awesome! (or other cleaner) on the bristles. Either shake off or use a towel to remove any excess cleaner. Now use the brush to scrub as much of the corrosion away as possible. If the corrosion is really bad, take an emery board (for fine filing fingernails) and use that to remove the corrosion.

Once the ports are in a satisfactory condition, use a can of air to dry the cartridge port. Finish drying the port using the microfiber towel. It may be necessary to give the cartridge port about 15 minutes to completely dry.

Putting It Back Together

We made it this far, now it's time to return the console back into the state we started with. Basically, this procedure is done in the reverse order that it was taken apart with a few slight differences. We will go through this step-by-step so that those doing this for the first time won't be lost.

Take the bottom shell and place with the inside facing you. Start with placing the front end of the main board first and then lower the rear of the board in place. Take special care to make sure that all connections are in the cut outs on the rear of the shell and that the screw holes in the main board are lined up with those in the bottom shell. Take a look at the photo as a reference.

At this point, there is one step that needs to be taken to ensure that the top shell is replaced properly. If this step is not done, the top will have to be removed and this step repeated. Not doing this can cause the Power switch and/or the TV Type switch to not work. What needs to be done is this: the Power and TV Type switches need to be in the same position. It

Replacing the Main Board

doesn't matter if they are in the up (Power On, Color) or down (Power Off, B&W) position, but they need to be the same. Don't panic if you switch the console on and the Power On LED comes on. The 2600 Jr can hold a charge and it is this charge that is being used. It is not harmful and it will be completely exhausted in a few seconds.

Position Power and TV Type Switches

The next step is replacing the flex-circuit for the GAME SELECT and RESET buttons. This time, however, it is a little easier to perform than removing it. But care needs to be taken to make sure it is replaced the right way.

The flex-circuit, for those doing this for the first time, has two ends to it. On one end you will see three electrical traces end where the flex-circuit ends. This end goes back into the black connector on the main board. The other end is the end that needs to be fed back through the slots we removed it from earlier. The "Atari" logo on the flex-circuit needs to be readable from the inside of the top shell. It should not

be upside or mirrored.

Start the flex-circuit as shown in the image below.

Starting To Replace the Flex-Circuit

Notice the "Atari" logo. Continue feeding the circuit until it is completely replaced. The circuit may have to have some help by feeding it from the top of the shell as shown below. Be careful not to try to use too much force or damage to the circuit may occur.

You will know the flex-circuit has been replaced properly when the hole in the flex-circuit is back on the peg under the RESET button well (see photo in the *Removing the Flex-Circuit and Main Board* section).

Feeding the Flex-Circuit

Now we can begin replacing the button covers back into the top shell. Whichever side you decide to do first is up to you but for this tutorial we will be replacing the slider switch covers first and then the PUSH button covers.

The slider switch covers can simply be placed straight in using pressure until the clamping tabs take over. Depending on the condition of the button covers, the clamping tabs may make a clicking sound. Either way, I'm sure you will know once they are properly seated as the switch will slide once again and will be flush with the top shell.

The PUSH switch covers are a little different. I have tried in the past to replace these using the same straight-down procedure that was mentioned above. But this has proved to be a little more difficult.

Placing Bottom End of Cover First

Start with either the top or bottom portion of the button cover and place it in the well. The clamping tab may catch and if it does that is OK.

Once one end is in place, use a finger to firmly push the other end in place. Be sure to replace both PUSH button covers and slider-switch covers.

We have now reassembled the top shell completely. We are almost ready to replace the top shell to the bottom shell but there are still a few more steps to do.
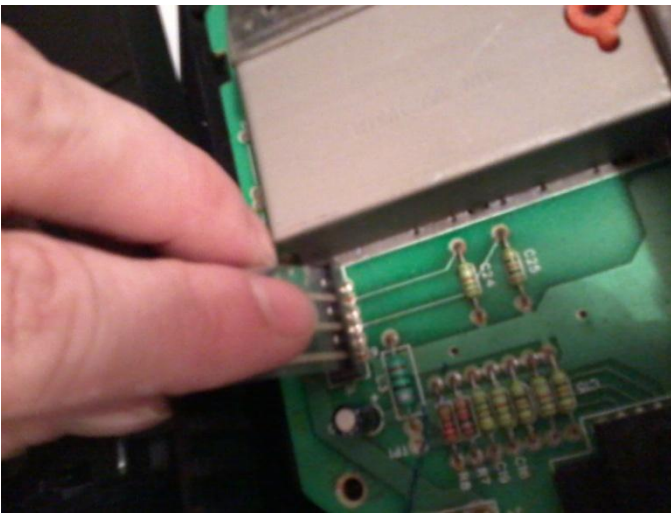
The flex-circuit needs to be replaced back in the connector on the main board or the GAME SELECT and RESET buttons will not work. This is the method I have found works best but there are other ways of performing this step.

Lay the top shell upside-down right next to the

Pushing Other End in Place

bottom shell making sure that the top shell is sitting next to the flex-circuit connector on the main board. Take the connecting end of the flex-circuit and firmly press it back into the connector on the main board as shown below.

Re-connecting the Flex-Circuit

Once the flex-circuit is replaced, fold the top shell over the bottom shell like turning the page of a book. Be careful to try and not lift up on the top cover too much or the flex-circuit will remove itself. Before placing the top shell to the bottom shell completely, take note the positions of the slider switch covers and make sure they are in the exact position of the switches on the main board. If this step is neglected, the switches will not be able to function as the slider switch covers will be blocked by the post of the switches on the main board. Now completely replace the top shell to the bottom shell, make sure the slider switch covers do not move from the position they are in. Once in place, firmly squeeze on the front end of

the console until it *clicks* back in to place.

Turn the console over and replace the five screws back into the screw holes as shown in the *Screw Locations* photo close to the beginning of this tutorial. Avoid over tightening them.

Congratulations!
You have just finished washing your 2600 Jr console. Some may ask "why do this?" and the main reason is for health issues. As mentioned before, not knowing where the system came from beforehand means that anything can be inside the console. It also means that any pet dander or odors may have been absorbed into the console as well. In rare cases, if the console was in a flood it is possible that the inside might have mold or mildew which can be extremely harmful. It's best to play it safe when dealing with used gaming gear.

By taking the time to perform a cleaning job on all consoles as they are obtained can ensure the console will be enjoyed in its best possible condition without making loved ones ill...including the furry ones. And it can increase the working life as well.

Don't miss future issues of Retrocade Magazine because they will contain procedures for cleaning other consoles and accessories! 👾
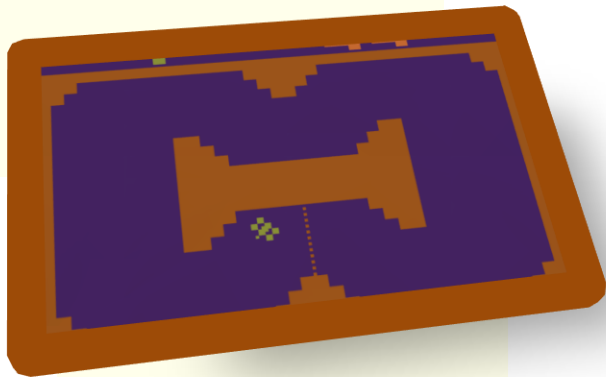
INDY 500 TOURNAMENT

INVITE YOUR FRIENDS, FIRE UP THOSE CONSOLES AND WAVE THE GREEN FLAG FOR SOME INDY 500 ACTION!

by Rob Maerz

The number of consoles required will depend on how many players are in the competition. If there are 4 players in the competition, one 2600 console will suffice. If you have 16 players, you may want to set up three or four consoles. Obviously, you will also need to have as many Indy 500 cartridges as you have consoles. You will need at least two driving controllers and one per each additional console.

RULES

All players should be guaranteed at least one match in head-to-head competition.

The grid should be determined by having all players complete one round of qualifying. Qualifying consists of most laps completed in 60 seconds (Game 1, single player mode).

Consider a second round of qualifying for players that would like to discard their first round of qualifying results in an effort to improve their position in the grid.

Qualifying Tiebreakers (in this order):

- First round qualifiers trump second round qualifiers automatically.
- For second round qualifiers, the aggregate results of first and second round qualification
- Head-to-head tiebreakers (only for those in their respective qualifying round)

For example, Joe qualifies in the first round with 10 laps. John and Steve decide to improve on their first round qualifying. In the second round, John and Steve both qualify with 10 laps. Neither can seed higher than Joe since Joe only needed one round of qualifying. Their aggregate qualifying laps are equal at 15. Therefore, John and Steve play a head-to-head qualifying tiebreaker.

The tournament bracket will then be created based on qualifying results. If the total number of tournament players does not equal 2^n power, then a knockout stage will be created to get the grid down to, for example, 16 players.
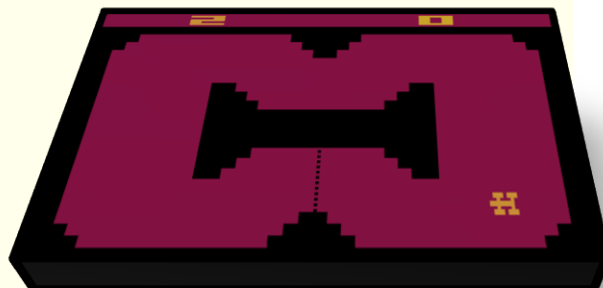
For example, if there are 18 players, a playoff between seeds 15-18 and 16-17 would occur to determine the 15th and 16th seeds in the bracket. This assures that all players see head-to-head competition.

Head-to-head competition:

- Higher seed has choice of controller
- Early rounds are one match
- First player to 25 laps wins

Semi-finals and Championship match:

- Two matches
- One match on each controller
- The aggregate score of the two matches determines the winner
- In the event of a tie, a third and final match will occur with the higher seed having choice of driving controller

The tournament champion must kiss a brick and drink a glass of milk.

BATARI BASIC

by Forrest Hodges

A fairly new programming language has been released to optimize the creation of Atari 2600 homebrew. This is called "batari BASIC." It lets you learn how to program the Atari VCS without having to spend a very long time learning how to program the 6502.

batari BASIC, or bB for short, has given people a whole new look on homebrew development. What happens is when you compile, it goes through this process:

check code for errors ➜ compile into assembly language ➜ open DASM ➜ assemble into binary

Your binary (.bin file) is what you play and burn onto a cart. Having a BASIC syntax lets the programmer spend less time programming a good game. Although it has less functionality than assembly, it has easier programming, less time, and less lines of code.

Which can you understand better?

 If joy0right then player0x = player0x + 1

```
or
2067          loop:    LDA #fe
2072                   STA $02
2075                   LDX #40
2076                   LDY #20
2078          start:   STX $01
2080                   STY $00
2083                   STA ($00,y)
```

With bB you can write one line of code rather than four or more to make your character (or "sprite" as they are called in the game design world) do something.   My first project "Frog Pickle" took me three months total time to make including two all nighters. Atari employees have talked of when they programmed - usually staying overnight, many days a month for their projects, and you would walk into the offices and smell a blast of mariju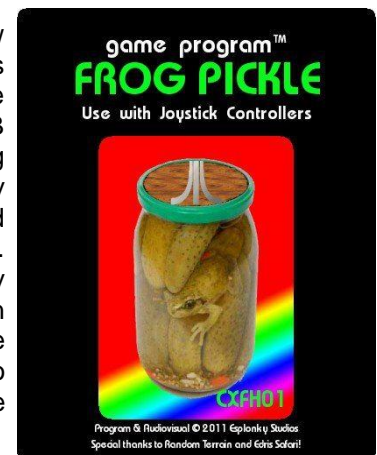ana, and sweat. You would find people asleep at their VAX computers and others programming away. This caused a lot of stress, and health problems. I recently tried to print both the assembly code and the bB code of my first project when it started looking like a game. I printed 6 pages of bB code and I got less than a third of the way through my assembly code and it was around 36 pages. Atari programmers had to write from scratch in assembly. bB cuts down the time and lets you have a life away from the computer.

The Atari 2600 has three main Chips inside of it: the 6507 processor, which processes all of the code (referred to in this article as the 6502), the TIA (Television Interface Adapter) and the RIOT Chip (RAM I/O Timer) which produced the sounds.

The Atari worked like this: you plug in a cartridge, turn it on, your code gets sent through the 6502, then to the RIOT, then to the TIA, then out to your TV, through RF (Radio Frequency) cables, or an A/V (Audio Video) Mod that someone put into their Atari.

We have a newer program called "Visual bB" and it is similar to RealBASIC, and Microsoft Visual Basic, where you actually draw your sprites instead of typing them in code - you can see your game coming to life. You can compile by clicking one button rather than typing in a command line, and then having to read your errors there. There is a fairly large community of bB programmers on Atari Age, as well as many people to go to for help with code and if you post a thread for help, it will come for sure and it will come fast.

There are a few homebrew games released that were made using the bB kernel, such as Frog Pickle, and Candy Catcher, and Seaweed Assault.. Hard work, and many hours of it have been put into all of the games above to make sure the consumer is pleased.

When people first start to learn, they throw useless crap into their code. I will be showing what *not to do* in your code.

⚐ the drawscreen command.
People OVERUSE this command in their source code too many times. This causes you to have less space to program your lovely piece of art. You should have one after every pf/COLUXX commands and one at the beginning of your main loop, to ensure more space for you.

⚞ Variables

Variables are great, if you use them sparingly. I was going through some random code of mine and saw that I declared 4 variables, but only used one, so I compiled and checked the space available to code.

   Before: "2138 bytes left"
   After: "2458 bytes left"

Those bytes may seem small, but in the Atari world, bytes are like gold.

⚞ GOTO, GOSUB overuse.

People use Goto and Gosub in their code way too much, and this leaves them with less space. Sometimes, you need to throw in 5-6 goto's or gosub's. Try cleaning up your code, and it will be better and a way more fun game to play.

4. Abuse of NUSIZX

NUSIZ0 and NUSIZ1 are great commands, but only if you truly need them. They are "Player Modifiers" which means they modify the appearance of the sprites. On the next page is a list of the modifier

NUSIZX Options:

Modifier	What it does
$0x	Missile = 1 pixel wide
$1x	Missile = 2 pixels wide
$2x	Missile = 4 pixels wide
$3x	Missile = 8 pixels wide
$x0	One copy of player and missile
$x1	Two close copies of player and missile
$x2	Two medium copies of player and missile
$x3	Three close copies of player and missile
$x4	Two wide copies of player and missile
$x5	Double sized player
$x6	Three medium copies of player and missile
$x7	Quad sized player

Most of those are useless to most people. I never use them, and they waste a lot of valuable space.

I picked up an unfinished homebrew recently called "Trashmania: Remix" (COMING SOON!!), and it is THE best game I have ever seen made with bB. It is very well designed: sprites, game play, sound effects, all there. There is a copyright screen, which is good, and

the programmer says that he actually made most of the game in bB, and did some graphics editing in the default.bas.asm output file to get some graphical features that bB cannot produce.

bB took me around six months to become fluent to where I can make a full game without help. I've been toying and tweaking and reading and spending hours getting nowhere trying to learn 6502 assembly language. When you compile your code in bB, it outputs an .asm file so you can look at it and somewhat learn from that. With 6502 you have to know each and every scanline, color, register, and where to put things. bB does all of that for you, so you don't make something ugly. There is a theory that if you use 6502 you will have a better looking game. NOT TRUE. Look at "Mouse Trap," "Spider Kong," "Zoo Fun," and "Pac Kong" - all made with pure 6502 from scratch in the 80's. They look horrible, and were made by mediocre programmers working for 3rd party companies.

In the end, bB would be a good first programming language. Use it to help learn 6502 asm alongside, and remember the number 1 rule: INDENT!

Indentation is key to the language - use it or it won't work. To start, go to the Atari Age Forums, click on "Atari 2600 Programming" and you will find a forum for batari BASIC. You can start your wonderful journey there, and also remember the key to programming bB, is not being afraid to ask for help. Also, try making side programs while you create your main project - it is a good thing to do to get past "Programmers Block." It gives you more knowledge, creativity, and in the end makes a great looking game. 🦎

ATTACK OF THE HOME BREWS !

The homebrew scene came in like a lamb and went out like a lion in 2011. The third quarter saw the release of Vector Pilot for the Vectrex and Moon Cresta for the Atari 7800 (both of which were reviewed in our premiere issue) followed by a deluge of homebrew offerings in late November and into December.

Collectors who weren't prepared to shell out an average of $60 per cartridge in some cases were left out in the cold for some or all of the 12 ColecoVision titles that hit the market. Thankfully, Team Pixelboy offered relief to collectors by

allowing them to reserve titles for purchase later if they bought a minimum of two titles by January 5.

With some production runs being once and done, collectors who missed out will have to wait until titles hit the secondary market where most likely the prices will have been inflated 500% (if they wind up on eBay).

With the influx of homebrews, we got as many new titles as finances would allow and have them here in review. Sprinkled in with the home brew reviews you'll find reviews of old brews as well.

And to kick things off, we are pleased to announce the 2012 Braumeister Award winner for home brew of the year. Eligible titles had to have been released between January 1 and December 31, 2011 and the winner was selected by the staff of Retrocade Magazine.

The envelope please…

Reviewed:

CONGRATULATIONS

Kristof Tuts and Tutstronix

Winner of the 2012 Retrocade Magazine Braumeister Award

For the 2011 homebrew of the year Vector Pilot!

"It's a fantastic game and very professionally packaged. The game play is fantastic and to top it all, the beautiful overlays give the illusion of colour graphics. In my opinion this is the best game for the Vectrex ever made." - VectrexMad!, vectrex.co.uk

"great optics, great performance, good gameplay"

– vectrexmuseum

"Without a doubt the BEST game you can get for this system!"

- "SoCal Mike" Kennedy, GameGavel.com

"I have heard the game described as 'beautiful' more than once by gamers who don't even own a Vectrex. The game, the overlays, the packaging – everything about Vector Pilot is spectacular. I believe that this is the best game ever released for the Vectrex and quite possibly the best classic home brew cartridge ever produced."

– Rob Maerz, Retrocade Magazine

Retrocade Magazine

Braumeister
Award
2012

Vector Pilot
by Tutstronix

The Classic Sega Arcade Game for ColecoVision !

Bank Panic

Platform: ColecoVision

Released by: Team Pixelboy, 2011

by Rob Maerz

Bank Panic made its way to the ColecoVision in late 2011 thanks to Team Pixelboy and Eduardo Mello. The ColecoVision release is a port of the SG-1000 translation of Sega's 1985 arcade classic.

You play the good guy with an itchy trigger finger in this shootout set in the Old West. You patrol 12 bank doors but play only 3 at a time. When the doors open, you will see patrons depositing sacks of money, bad guys trying to steal the money or occasionally a kid balancing a stack of hats on his head that can be had for bonus points. When money has been deposited through each door of the bank, the level ends and you progress onto the next level of a higher difficulty.

There are three different levels of difficulty to choose from to start the game. For gamers that are not familiar with the game play of Bank Panic, I would recommend starting at Level 1. Gamers that are familiar with Bank Panic should be able to start at Level 3 after familiarizing themselves to the ColecoVision controls.

Speaking of controls, they are mapped on the ColecoVision controller as such:

Left fire button: Left bank door

Joystick up   Middle bank door

Right fire button   Right bank door

Joystick left   Move left

Joystick right   Move right

There's a lot going on in the playfield. The scoreboard contains numbers 1 – 12 which represent the respective door number. If you have a $ in the white box (directly above the door number) that means money has been deposited through that door. Above those boxes you will see 5 horizontal hash marks that indicate the progression of a character's approach to the bank door. When the bottom-most mark is colored it indicates that there is someone at the door. In the

middle of the screen is a timer below a pendulum called the "fair average meter." Right in the middle of the playfield are the doors themselves, each numbered respectively.

In earlier levels, the bad guys only take one shot to kill off. Later on, the first shot will hit the robber's gun requiring a second shot to kill him off. If he shoots you first, you will lose one of your lives. Additionally, if you shoot off a bank patron, you will lose a life. As you progress through each level the game increases in pace and you'll see variations such as a robber standing behind a patron with gun in hand.

You can shoot and kill a robber as soon as the door opens (deemed an "unfair shot"). However, you earn more points the longer you wait to pull the trigger. The fair average meter indicates the average remainder of time taken to shoot a robber fairly (a fair shot is when you wait until the robber draws his gun before shooting - just like the old ways of the west).

Shooting a robber "unfairly" gives you 100 points. However, for the best fair shot delay (0:00), you will earn 5000 points for robbers wearing green shirts and red vests and 3000 points for others. Additionally, you will earn a letter in the word "EXTRA" (displayed in the bottom left port of the screen) for every green shirt and red vest wearing robber you shoot with a 0:00 fair shot delay. When you earn all letters in the word "EXTRA," you will earn an extra life.

Another thing to be mindful of are the bombs that robbers periodically place on bank doors. To disarm the bomb you must scroll to that door and fire a shot. If you do not disarm the bomb in time you will lose a life.

When a customer deposits the first money bag through a bank door, you will earn 200 points. A second deposit through a bank door nets 400 points, the third 600 points and all deposits thereafter earn 1000 points.

The graphics presented here make the most of the ColecoVision's capabilities. Although there is a graphics glitch noted by the developer included with the game manual in regard to faulty graphics being displayed in the scoreboard. The graphics glitch, however, does not affect game play.

Bank Panic on the ColecoVision gets two thumbs up in the fun factor department and will have you whistling Dixie long after your gaming session is over. To boot, the cartridge itself is an old-style shell Activision used for ColecoVision.

Grade: A

Rare Cinematronics Classic Ported To The Vectrex!

Sundance

Platform: Vectrex

Released by: Fury Unlimited, 2011

by Jasper "Desfeek" Alto

The Vectrex holds its special place in video game collecting because it is the lone sentinel of home vector graphics, a style popularized in the late 1970's and early 1980's almost entirely by coin-op manufacturer Cinematronics. GCE partnered with Cinematronics for a deal which included full access to each other's games. This deal brought some of the best Vectrex games: Armor..Attack!, Ripoff, Space Wars, Star Castle, and Starhawk, as well as allowed Cinematronics to create an arcade version of Cosmic Chasm. Thanks to programmer George Pelonis of Fury Unlimited, Vectrex owners now have a great port of the rarest and most sought-after Cinematronics cabinet ever: Sundance.
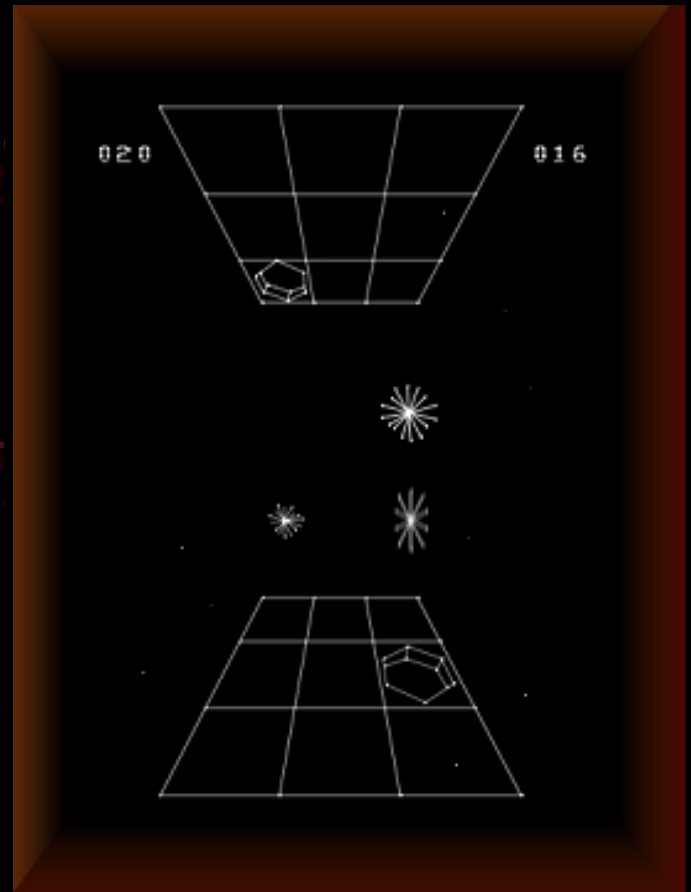
One of Cinematronics' first releases, Sundance saw incredibly low production, even lower than the rare Cosmic Chasm cabinet. Coupled with that, original creator Tim Skelly has been quoted as saying Sundance was a "very fragile game, and few lived long". Only three working cabinets are known today: one had a pretty normal existence, one was restored from near annihilation, and the other has an incredible roller coaster tale. It was spied on a website containing photographs of abandoned buildings with the simple header, "An old video game". After extensive research into the owner of the property, and many wasted resources, one brave soul broke into the meth and feces-ridden building and carted the game out themselves. Amazingly, it was still in stellar condition considering its environment.

While the person was reportedly eventually contacted by police, the story is a great example of how far collectors are willing to go to get their "holy grail".

Sundance is a unique, interesting top/down pong-style game with a few game variants. There are two 3x3 grids facing one another, bouncing suns back and forth. Using the joystick in conjunction with Button 4, players open black holes on their grid

to engulf the suns. After a sun is engulfed, a new one appears in a randomly assigned place on the grid. If the player misjudges a descending sun, the grids move closer together, meaning the action gets faster! If the grids touch, it is game over.

There are three different game modes, as well as a 2-player mode. Game modes 2 and 3 introduce 'novas'. With a black hole open, a player can use Button 3 to shoot a fast-moving nova at one spot on the grid. The nova only disappears after destroying a sun, or being re-engulfed by a player's black hole. The grids do not move closer together on a missed nova. Each player can have one nova active at a time, so it adds a very competitive aspect to the 2-player mode, plus, game mode 3 would be over quickly if not for this ability. On the title screen, George also included the option of an x-y calibration mode, as different Vectrexes have different alignments.

The controls are done as well as possible on a Vectrex controller, unfortunately, the complex control scheme of the original cabinet are difficult to replicate. It used a 3x3 grid of 9 buttons, one button for each spot on the in-game grid, and a

nova button. While George came up with a brilliant solution for this dilemma, the joystick direction/Button 4 combination can become confusing at times, especially when trying to fire novas, or using a digital (homebrew) rather than analog (original) controller. However, with enough practice in game mode 1, the controls begin to feel fluid. Maybe this is a symptom of being such a unique game demanding a very unique control scheme, but it just feels awkward at times.

Other than the absence of a soundtrack - which is probably due to the fact the original had no music - the overall sound quality is excellent. The intro screen has a fiery roar to it, which, if humanity knew what the sun sounded like, might be close to the actual thing. There are solid, audible 'bump' sounds every time a sun touches a grid, and a satisfying 'latch' sound when a player engulfs a sun. When a nova is active, a soft hiss emits that is much like the sound of a Star Castle ship in motion, and a great explosion sound effect greets a nova collision with a sun. This game still could have benefitted from a simple, repetitive beat, for extended sessions in game mode 1.

Other than the obvious draw of vector graphics, Sundance looks great. The use of 3D effects; making the grids push into the background, different sized suns and novas to indicate depth; really makes the game friendly on the eyes. The difference between a small sun (background) and a medium sun (middle ground) might take a round or two to distinguish at the beginning, but practice will eliminate any confusion quickly. There are also tiny dots of stars, like in many Vectrex games, emanating from the center of the screen, to give Sundance the proper 'space' effect. It would have been cool if novas had more distinctly different sprites than suns, but this is a nitpicky complaint.

An insanely rare arcade machine exclusively ported to a very obscure game console: this is all the information people need to purchase this game. However, when they receive it, they will also be blessed with an intense, action-packed experience that gets better when they have a friend to play with. While it would have been cool to have the niceties some homebrews offer, such as an overlay, or a full-sized box and manual, George has

stuck to his standard release practice with Sundance, offering a clamshell case, small printed manual, full-size Vectrex cartridge, and a small iron-on patch for the first 60 pre-orders. Sundance is an important piece of vector graphics history, its stories help bolster its place in gaming lore. It must be said that this game should technically be called 'Stardance', but with so many other 'Star-' games of the era, maybe it is best left alone. Kudos to George and his crew on yet another solid Vectrex release, and the community cannot wait for their next installment.

For more info and ordering details visit George's site at: http://www.furyunlimited.com

Grade: B+

OZMA WARS

VIDEO GAME CARTRIDGE FOR THE
CBS COLECO VISION™
CONSOLE

1 OR 2 PLAYERS · MULTIPLE SCREENS · 4 SKILL LEVELS

Here are some of the game screens

Don't miss the docking ship to replenish your energy.

Fight the numerous alien waves.

Get through the meteor fields.

Try to destroy the deadly comets.

CBS ELECTRONICS

OZMA WARS

JUST LIKE THE REAL ARCADE GAME ™

HIGH RESOLUTION
VIDEO GAME
CARTRIDGE FOR THE
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CONSOLE

CBS ELECTRONICS

New For ColecoVision!

Ozma Wars

Platform: ColecoVision

Released by: CollectorVision, 2011

by Rob Maerz

It's not common to see ports of arcade games that were released in the 1970s nowadays, so seeing an obscure title ported from that decade is refreshing.

Originally released by SNK in 1979, Ozma Wars is a slide-n-shoot in which you control a spaceship at the bottom of the screen and destroy the alien ships that descend from the top. At the end of each stage you dock with a battleship (in space???) to replenish your energy. Instead of losing lives in this game you lose energy and the game is over when energy is completely drained.

Like the traditional ColecoVision cartridge, there are 4 skill levels to choose from. Ozma Wars is challenging even on the easiest of all skill levels.

The game won't blow you away with the sound or graphics. The sound effects in the arcade game can be downright abrasive, however I do miss the "Space Invader-esque" sound effects which are absent in this console release. The sound effects found in this port are generic at best and reminiscent of those found in earlier ColecoVision titles like Miner 2049er, Destructor and Frantic Freddy. The home release has been colorized with objects drawn in two colors against a multi-colored star field.

The game play here is a step above other slide-n-shoots released in the late 1970s. Typical of that time period you would have three lives and you were done (*maybe* a bonus life). Here you lose energy when you collide with alien ships or when you are struck by their missiles. There are elements in this game that perhaps inspired the 1980 release of Astro Fighter by Sega/Gremlin/Data East.

But, the game has more depth than shooting the same, tired old enemies repeatedly. There are enemies that divide into multiple, smaller versions of themselves while other enemies go from fat to skinny right before your very eyes. And the bad guys are relentless as you get pelted by a monsoon of missile fire. Precision is key in Ozma Wars.

Fans of Megamania for the Atari 2600 may take a liking to this release and should find Ozma Wars to be more challenging. Otherwise, I don't see this as being a "must have" for the casual gamer. In any event, I commend CollectorVision for not only releasing a lesser known title but also for making a fairly accurate arcade port. To boot, my cartridge is the "CBS ColecoVision" version CollectorVision produced and printed on the label is "FOR USE ON PAL SYSTEM."
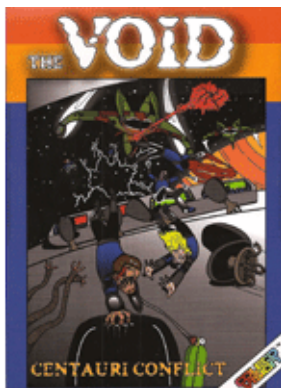
Grade: C-

The Void: Centauri Conflict

Platform: ColecoVision

Released by: Atari2600.com, 2010

by Brett Weiss

Enter *The Void*, if you dare.

Released at the 2010 Classic Gaming Expo in Las Vegas, *The Void: Centauri Conflict* is an enjoyable homebrew title published by Atari2600.com, one of the best and most respected retro videogame retailers on the planet. It's an old-school shooter in the tradition of such time-honored classics as *Astrosmash*, *Demon Attack*, and *Gorf*.

Players guide their ship back and forth along the bottom of the screen, firing upward at four different types of attacking alien ships that move either right, left, down, or in a zigzagging motion. There are never too many enemies onscreen at once (though some of them must be shot more than once), and they are spaced apart pretty well, making for a challenging, but fair game in which accurate aiming is crucial to the player's success. There are also asteroids and boss ships, the latter of which move horizontally and fire long beams.

The graphics are flat, but serviceable, and the ship design is uninspired. However, you do get to select from four different ships, each a different color and speed, and each upgradeable by grabbing a special weapon: Daisy (dual bullets with single shot kill), Dr. O'Celoc (torpedo with remote detonator), Adam (shield bubble), and Illusion (ray beam).

In addition, there are 12 player rankings to work your way through, each taking a larger amount of points to acquire: Space Cadet, Second LT, First Lt, Captain, Major, Lt Colonel, Colonel, Brig General, Major General, Lt General, General, and Fleet Admiral.

Overall, *The Void* is a solid shooter and a nice addition to any ColecoVision owner's library. You may have to hit the reset button from time to time due to an occasional glitch, but this is hardly unheard of in a homebrew game.

The Void was produced in limited quantities, but it's readily available on the Atari2600.com website, complete with labeled game cartridge, instruction manual, and full color box with storage tray.

*Brett Weiss is the author of the **Classic Home Video Games** book series (McFarland Publishers), and of **Filtered Future**, **The Land of Oz and Other Dark Tales of Science Fiction and Horror** (2012, Amazon Kindle).*
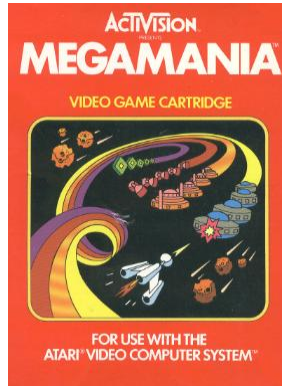
Megamania

Platform: Atari 2600

Released by: Activision, 1982

by Matt Daws

Rock n' roll is a genre of popular music in which just about everything you hear has already been done. For every starry-eyed fan singing the praises of an up-and-coming modern band, there are bound to be several detractors all too willing to point out which acts from the past the new band is ripping off.

Fortunately for such new bands, a rock n' roll song can still make for a very enjoyable listening experience even if it isn't terribly original or groundbreaking. Come up with the right combination of blistering guitar riffs, fist-pumping choruses, and indelible hooks, and you just might have a hit on your hands.
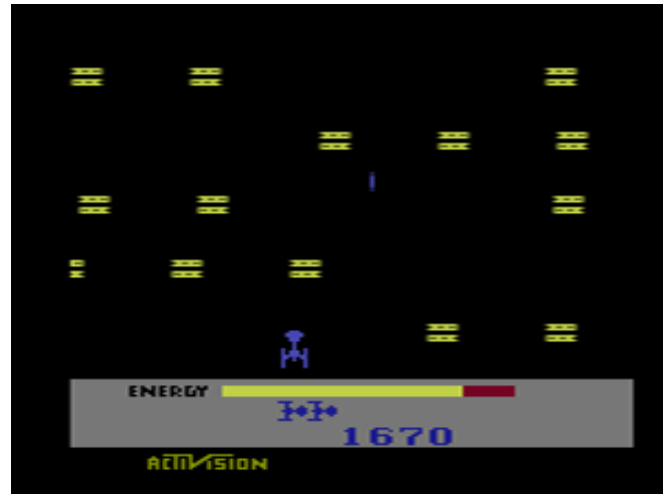
It could be argued that a similar concept applies to videogames. Just look at the industry today—how many different ways can the first person shooter possibly be repackaged? The answer to this question is moot, because those games continue to sell like crazy.

Now, let's rewind back to 1982, when Activision released a space shooter called *Megamania* for the Atari 2600. By that time, it seemed as if the last original ideas in slide-n'-shoot game design had long since been expended, and most new titles of that type felt like not much more than re-skinned versions of things that had already been done.

That may have been the case, but as in rock n' roll songwriting, pure originality in game design is not necessarily a hard requirement if the goal is simply to provide an entertaining experience.

In *Megamania,* you move a spaceship left and right across the bottom of the screen and attempt to clear out waves of enemies attacking from above. Time is of the essence, because you are provided with an energy meter that gradually depletes, and you lose a life if it hits empty before you are able to kill off the entire enemy wave. Every time you clear a level, you are rewarded a bonus based on how much energy you have left in the tank, so the key to high scores is to wipe out each wave of enemies as quickly as possible.

Aficionados of early 80's arcade games are sure to take note of the fact that *Megamania* looks a lot like Sega's 1981 coin-op *Astro Blaster.* Similarities include the erratic cadence of the attacking enemies, the gradually depleting energy supply, and even the shape of your ship itself. As far as I know, there is no officially acknowledged link between the two games, but the likeness is undeniable.

Free lives are awarded every 10,000 points, but you're only allowed to maintain up to six ships in reserve; if you already have a full stock of reserve ships when you cross a free-life threshold, you get nothing. Apparently, your score maxes out at 999,999 points, but I'll have to take that one on faith because I'm not nearly skilled enough at this game to get that far. I will say that I'm definitely a "Megamaniac"—a distinction Activision bestowed upon players back in the day who were able to score 45,000 points or better and prove it by mailing in a photograph of their television screen. Today, the patches awarded by Activision for such achievements are highly collectible in the retrogaming community.

In the back of the user manual, there is a nice pro-tip from game designer Steve Cartwright (whose other Atari 2600 works include

HOW TO BECOME A MEGAMANIAC

Tips from Steve Cartwright, designer of MegaMania™

Steve Cartwright is a Senior Designer at Activision. His first release, Barnstorming,™ set a new standard for brilliant graphics in the video game industry.

"I hope you enjoy my latest work, MegaMania. Here are a few pointers that I'd like to share with all of my fellow MegaManiacs."

"I recommend that you try to stay in the center of the screen. This keeps you from getting trapped in a corner, and also gives you the side-to-side flexibility necessary to guide your missiles effectively."

"And here's a piece of advanced strategy to really help boost your scores: bonus points are awarded depending on your energy remaining at the time you destroy the last object in a wave. So, if you have built up your reserve ships, and you're nearing the end of a wave, go ahead and sacrifice a ship. Your energy will be fully recharged, and, if you can quickly destroy the last attacker in a wave, you'll pick up maximum bonus points."

"It's really wild out there, but please take a couple of minutes and let me know how you're doing. Remember, all of us MegaManiacs are in this thing together!"

Steve Cartwright

Barnstorming and *Seaquest*). If you have a full stock of reserve ships and are getting close to clearing a level, intentionally sacrifice a life. When you start back up with your next ship, you will have a fully replenished energy supply, and thus a larger bonus when you destroy the last remaining enemies of the wave. The bonus you receive will usually be large enough to get you over the next multiple of 10,000 points, thereby replacing the sacrificed ship. Thanks, Steve!

If *Megamania* contains anything that could be considered unconventional for a 1982 shooter, it would have to be the enemies. You will find yourself squaring off against hamburgers, cookies, bugs, radial tires, diamonds, steam irons, bow ties, and space dice. As you would expect, the primitive single-color Atari 2600 sprites represent some of these items more faithfully than others. For instance, the hamburgers and bugs could easily pass as generic videogame UFO's, but the menacing silhouette of an attacking bow tie is unmistakable.

Each enemy type has its own attack style; some favor the top of the screen, while others—such as the cookies, irons, tires, and dice—rain down on you and invade your personal space, killing you on contact. If you are able to survive all of the enemy waves in the order mentioned above, you go back to the hamburgers to do it all over again, and each enemy type adopts a slightly trickier attack pattern.

In classic Atari 2600 fashion, some of the game play settings in *Megamania* are adjustable. Moving the console-mounted difficulty switch from "B" to "A" slows down your missiles, making it more difficult to destroy your enemies in rapid succession. Using the select switch to cycle through the available game variations, you can arm your ship with either straight shots or guided missiles that can be steered left and right after firing. In 2-player mode, you alternate turns with your opponent; there is no option for simultaneous play as there was in other shooters released for the Atari 2600 in 1982, such as Imagic's hit *Demon Attack* and Fox's quirky-but-excellent *Worm War I*.

When I really step back and take an objective look at *Megamania*, it almost seems as though it shouldn't be as fun as it is. After all, it really is just a patchwork of tried-and-true elements, not to mention a bit of a late comer to the slide-n'-shoot party. This paradox is perhaps a testament to the exceptional talents of the original Activision team, an outfit that rightfully garnered a reputation in the 80's for taking the Atari 2600 gaming experience to the next level by means of leading edge graphics, responsive controls, and well-balanced difficulty. In this sense, *Megamania* might be thought of as the quintessential example of a videogame that, as a whole, is greater than the sum of its parts.

For players who find this primitive form of space shooter a bit tired and uninteresting, *Megamania* is not going to be much of a revelation. But for those of us who can appreciate the elegant simplicity of a fast-paced space shooter in the time-honored tradition of *Space Invaders*, there are few titles available for the Atari 2600 that can hold a candle to *Megamania*.

Grade: B+

ATARI® **7800** VIDEO GAME CARTRIDGE

SCRAMBLE
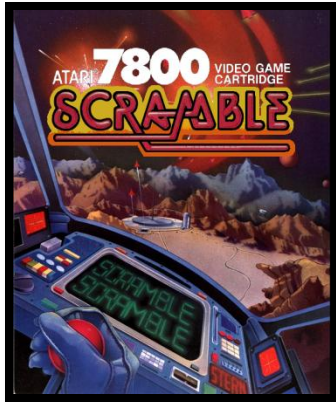
The Konami Classic For the Atari 7800!

Scramble

Platform: Atari 7800

Released by: Bob DeCrescenzo, 2012

by Rob Maerz

Bob DeCrescenzo has been on a tear and I wouldn't put it past him to release the entire arcade for the Atari 7800 by year 2015. His latest release is a translation of Scramble, the challenging horizontal shooter released by Konami in 1981.

You pilot a space ship while dodging missiles, destroying bases and bombing fuel tanks through various terrains. There are five terrains to get through before you face the objective of bombing the enemy base on the sixth stage (it feels like Déjà Vu all over again). I have a lot of respect for Scramble as it challenges you in several facets: shooting accuracy, pattern memorization, maneuverability and proficiency in secondary languages.

There are three levels of difficulty: Easy, Normal and Hard. Gamers that are new to Scramble may consider the Easy skill level to start with in order to learn the various terrains. Experienced Scramble players should be at home at the Normal and Hard skill levels.

I had a similar reaction when I first played Bob's *Jr. Pac-Man* release for the 7800: right from the word "go" (or in the case of Scramble, the William Tell Overture) the fun switched on. Scramble is synonymous with action and it screamed "let's blow stuff up!" from the onset.

Scramble used a vertical monitor in the arcade and I like the fact that Bob didn't mess around in converting it to horizontal for your TV. In this version, the screen is centered with empty space

flanking either side. As you progress through the various terrains in the game, that empty space changes to the respective playfield background color so it's not that you have ugly black bars on either side of the screen.

The arcade-like graphics look great and the ground objects appear as though there's light from a distant star shining upon them. The terrain is jagged and not straight-lined and blocky as you would find in *Super Cobra* for the 2600. And have no fear – smooth scrolling is here!
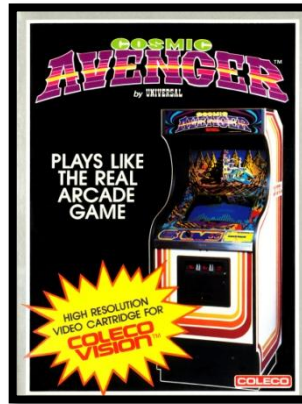
The player's score is in the upper left (high score table is maintained while the console is powered on), your number of ships on the bottom left, stage progress is top center and your fuel gauge at the bottom center. Speaking of the fuel gauge: bombing fuel tanks replenishes fuel and on the Hard skill level your fuel depletes quickly.

The game will auto-detect if you are using a controller with one fire button or two. If you are using an Atari CX-40 with one fire button, you will drop bombs and fire simultaneously. If you are using a two button controller like a Proline joystick (it does not work with a ColecoVision controller), you can bomb and fire independently. Unlike Super Cobra for the 2600, using one fire button works just fine.
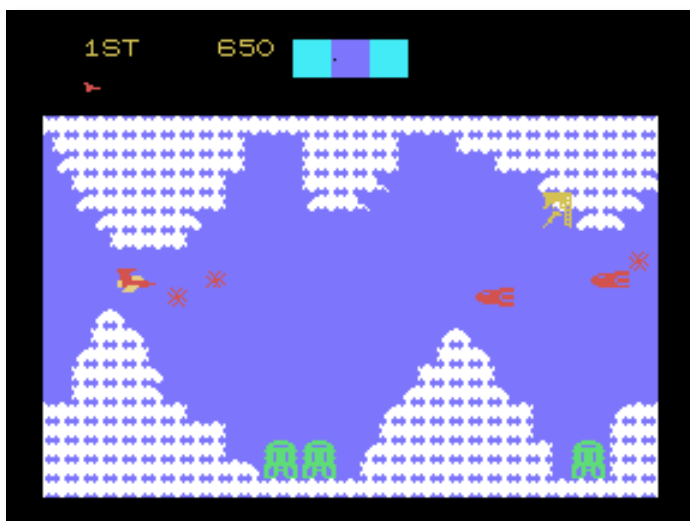

This cartridge was met with high praise on AtariAge and with good reason: it's spectacular! Scramble for the Atari 7800 ranks as one of the finest releases *ever* for the Atari 7800.

Grade: A+

Cosmic Avenger

Platform: ColecoVision

Released by: Coleco, 1982

by Rob Maerz

Coleco released a number of Universal games like Lady Bug, Mr, Do! and this side scrolling shooter, Cosmic Avenger. Avenger was the final "Cosmic" release for Universal (Alien, Guerilla and Monsters were released from 1979-80).

Similar to and released the same year (1981) as Scramble and Super Cobra, Cosmic Avenger has you piloting a space ship bombing ground targets, shooting UFOs out of the sky and "cosmic squids" found in the sea. Unlike Scramble or Super Cobra, fuel consumption is not an option to be concerned about but that's not to say that Cosmic Avenger is a walk in the park.

Like the majority of ColecoVision cartridges that were released during the console's production run, there are 4 skill levels to choose from with skill 1 being the easiest and skill 3 as "the arcade level" (i.e. arcade equivalent).

Upon selecting your desired skill level, you're ready to get down and boogie to the arcade perfect introductory jingle that holds you hostage before the game can commence. There are simplifications graphically from the arcade version which Cosmic Avenger arcade fans will notice from the onset. For example, there is no star field in the background and objects are rendered in fewer or less vibrant colors. Colors were a big part of both the game (itself) and the cabinet artwork and those were lost in translation (the latter being a given).
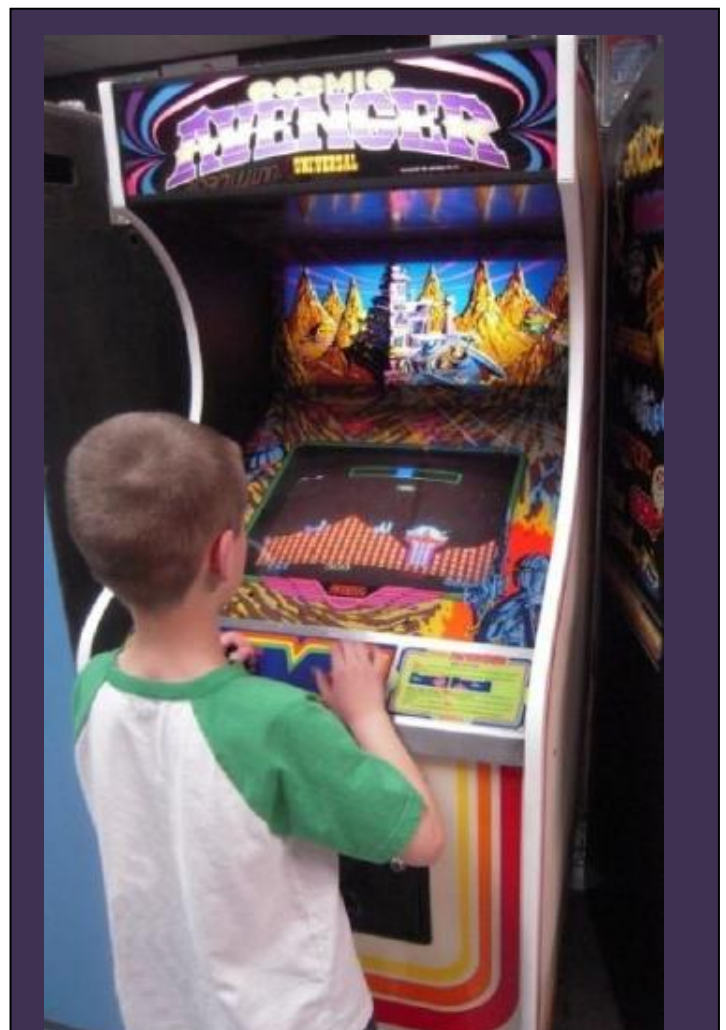

The game scrolls right to left and as you move your ship to the right the game increases the speed of the scroll. If you want to maximize your points, the advantage is in keeping your ship to the far left to scroll at the slowest pace. I would advise only moving the ship to the right when you need a quick escape from ground missiles or UFOs.

What's nice is that you can hold in the left fire button for continuous bombing while you use the right button for manual and precise missile firing. Crop dusters beware: you can lose a life by getting too close to explosions!

Despite the graphic and audio simplifications, I find Cosmic Avenger to be a fine translation. While there are only three distinct scenes in this game, the challenge presented makes up for what would otherwise be monotonous game play. On the rarity scale, Cosmic Avenger ranks as a common cartridge so it will not dent your wallet in adding this to your collection.

Grade: B

In the artwork department, Universal ranked as the industry's best among arcade manufacturers

ColecoVision™

CIRCUS CHARLIE™

MSX PORT BY
EDUARDO MELLO

Konami®

Published by
Team Pixelboy

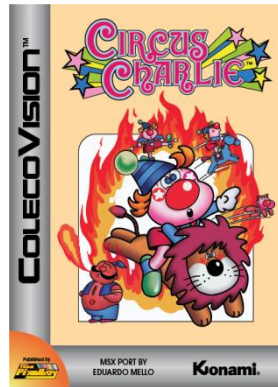The Konami Arcade Hit for ColecoVision!

Circus Charlie

Platform: ColecoVision

Released by: Team Pixelboy, 2011

by Rob Maerz

Circus Charlie was released to arcades in 1984 by Konami and it's now available for your ColecoVision from Team Pixelboy.

You play Charlie, a clown that has been tasked of saving a fledgling circus. He devises five circus acts for you to navigate: jumping through flaming hoops while riding a lion, walking on a tightrope while avoiding monkeys, walking on balloons, riding a horse through a field of trampolines and swinging on trapezes.

The game has been simplified from the arcade version. This version provides five of the six levels found in the arcade game (the knives level is missing), certain animations are not present (for example, the "Oh! No!" animation when losing a life) and some objects (like the flaming hoops and the monkeys) are rendered in single colors.

This game will test your patience (which is why it's so challenging for me). On the flaming loops stage, for example, at times you will need to move backwards in order to time a jump through the hoop

and over the fire pots at the same time. As you can imagine, anytime you touch a flaming hoop or a fire pot you will lose a life. The flaming hoops stage is the easiest which is why it is the first stage in sequence. However, I did spend quite a bit of time on all five stages courtesy of the game's continue feature, which allows you to pick up on the last stage you left off. This allowed me to master each stage individually. Speaking of time: each level must be completed before the bonus timer reaches zero otherwise you will lose a life.
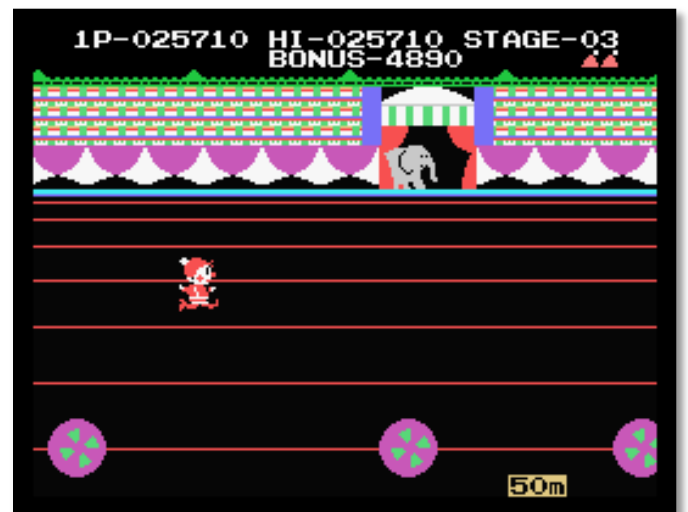

The tightrope act finds Charlie walking along a tightrope and jumping over monkeys that are trying to knock him off. The key here (and for the remaining acts in this game) is a good mix of short and long jumps.

By far the most difficult of all acts is the trapeze act. Charlie must swing from trapeze to trapeze to reach a platform at the end (while arcaders may

New For ColecoVision!

Star Force

Platform: ColecoVision

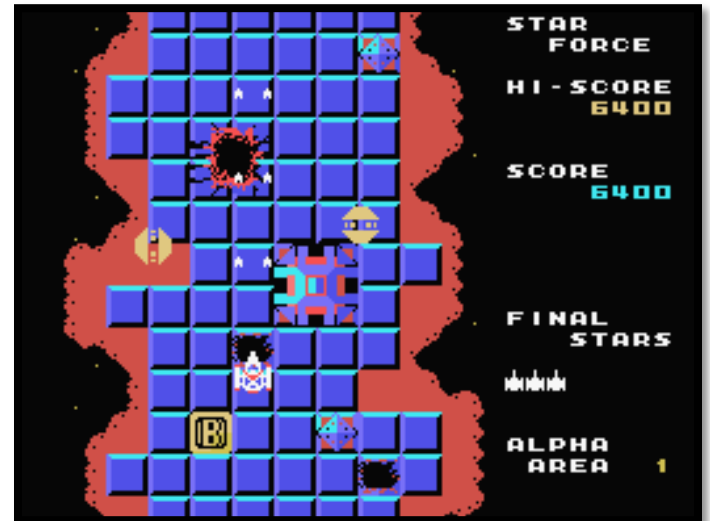**Released by:** Team Pixelboy, 2011

by Rob Maerz

Tehkan released Star Force to arcades in 1984 and as of December, 2011 it is now available for your home "arcade quality experience" courtesy of Team Pixelboy.

I can't say that I was all too excited for this release but I figured it would make good in my collection. Having not gone gaga over the arcade game, I figured it would make it into the ColecoVision every so often for a change of pace. When I received this cartridge, I plopped it into the Connecticut Leather Box, made sure it worked and then put it right into the storage tub.

So, for the purpose of writing this review, I fired it up in my ColecoVision and gave it more of a college try this time.

Star Force is a cookie-cutter vertical shooter in which you command a spaceship through a distant galaxy over floating space islands. Along the way, you dodge oncoming enemy fire and blast them away along with the island targets scrolling below. Basically, your mission is to destroy anything that moves or is fixated on the space island.

Scrolling "is what it is" on the ColecoVision: jerky. And you'll find that Star Force is unable to free itself from this limitation. However, I believe it's something that can be played through.

The game looks pretty good in the graphics department. Enemies have been simplified using one color and your space ship is predominantly white with a hint of red. The islands and ground targets aren't jaw dropping but they're not terrible either. At times I did lose sight of the enemy fire against the background of the space islands which

left me wondering what hit me. Fear not, Star Force fans: the introductory and in-game music has been faithfully translated in this release.

The game really picks up the fun when you power up to dual ships giving you rapid fire power (and fortunately, you can hold in either fire button on your ColecoVision controller for continuous fire). If you power up on the first stage (Alpha Area) you may find yourself breezing right on through the second stage. Additionally, the boss ships featured at the end of each level are easy to destroy with dual ships. At the end of each level, you receive bonus points for every target you hit that looks like a letter. The next level will then commence with a new challenge for you to overcome.

I believe this translation will be favored by fans of the arcade game. I enjoyed this rendition of Star Force having found myself enthralled in repeat plays through a single session. In Wall St. terms, I'll call it a "buy."

Grade: B

Star Force

Platform: NES

Released by: Tecmo, 1987

by Daniel Castaneda

Star Force is a port of an arcade game released by Tehkan (now known as Tecmo) in 1984, however in the United States it was known as Mega Force. While this game was a huge hit in Japan, it was not as well received in the US and as such it only received one console port and that was for the Nintendo Entertainment System.

Like many older NES games, when you boot up the cartridge you are brought to the main screen and pressing start drops you straight into the action. The controls in this game are very simple: you use the d-pad to move your ship and both buttons fire (and can be held down for auto-fire). The down side is that there is no secondary weapon, and upgrades are rather limited so you must make use of what you start with throughout most of the game. This setup is familiar to anyone who has played classic shmups, so if you're a fan of the genre you should feel right at home.
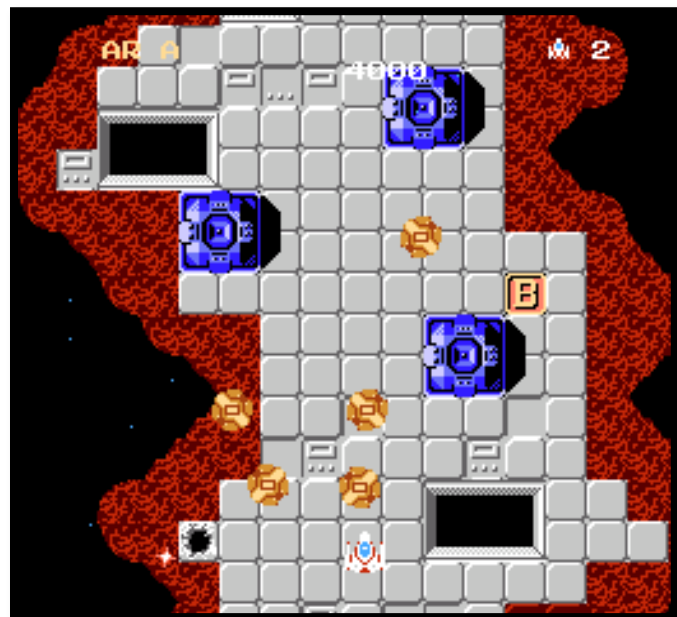
One of the first things you will notice is that this game does not pull any punches: it starts throwing hordes of enemies at you right off the bat and it does not let up. Along the way you can destroy objects on the ground to collect bonus point squares, but they are not very common and easy to miss while you're busy dodging incoming enemies. Along the way you can also pick up the lone power up in the game: a small version of your ship that if you collide with doubles your rate of fire.

When you reach the end of the level, you fight a boss based on that level. There are 24 levels in this game, each based on the Greek alphabet, so the first boss is called Target Alpha, who can be described as an orange square with the letter A on it. Unlike the rest of the level, the boss battles are fairly easy, especially if you have the power up. All you have to do is fire on the boss while avoiding

getting hit by the turrets or colliding with the boss and you should beat the level in no time.

The graphics in the game are fairly basic, but unsurprising for a game of its time. Your ship is mostly white with a few other colors on it, the enemies for the most part repeat throughout the game, and the tiles are virtually identical throughout the game. While I am one to say that graphics do not make the game, I cannot help but feel this area is lacking.

The sound effects and in-game music are pretty good. The game's introductory and background music, while perhaps not the most memorable, is catchy and fits the game well. The various sound effects are not extraordinary but they sound good and do not detract from the game. In fact, the shots fired and explosion sound effects are very satisfying to hear.

Overall, it is hard to consider this game anything other than average. The US version received an upgrade from the original Famicom version; however this was not enough to really make this title a contender. Sure the game is challenging, but it lacks anything to separate it from other great games, such as the various top down and side scrolling shooters from Konami and Capcom. The less than average visuals, the lack of upgrades and disappointing boss battles made this game underwhelming in the late 80's, let alone 20 years later.

So who would I recommend this to? Well, if you love shmups or really challenging games, I would give this one a go. Otherwise, unless you want every NES cartridge in your collection, I would go with one of many other great top down shooters available for the NES.
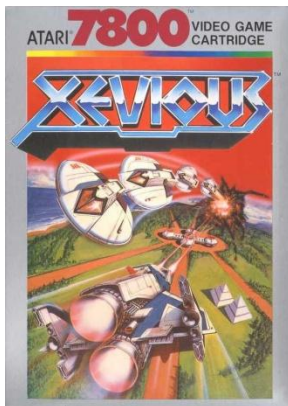
Grade: C

Xevious

Platform: Atari 7800

Released by: Atari, 1986

by Matt Daws

Created by rookie game designer Masanobu Endō and released to arcades in 1982, Namco's *Xevious* hit the scene at a time when coin operated shoot-em-ups were still riding the wave of popularity that exploded four years prior with Taito's *Space Invaders.*

In the intervening years, most vertical shooters were essentially embellishments of the basic formula established by *Space Invaders,* in that they consisted of fixed-screen level designs set in outer space, pitting the player against grid-like formations of enemies that would descend from above and attack in patterns until they were all defeated.

Rinse and repeat.

With *Xevious,* gamers were introduced to the concept of vertically scrolling backgrounds that revealed detailed, varying terrain. The commonplace solid-colored playfield littered with nothing but twinkling stars was foregone in favor of earthly formations and colors. The goal was not to destroy every last enemy in order to advance to the next stage, but rather to simply survive, and score as many points as possible in the process.

Enemies would attack from both the air and ground, and players with enough skill to ward off the rank and file of the opposing forces would eventually be confronted with large, ominous crafts that occupied a significant portion of the screen. In retrospect, these "mother ships" can be thought of as a prototype of sorts for what would eventually come to be known as the ubiquitous videogame "boss"— a paradigm that we all know persists to this day.

Xevious was a commercial success in Japan, but for whatever reason, it was not as well-received in Western arcades. Spotty popularity notwithstanding, the game stands as a seminal title in its own right, due in no small part to the aforementioned advancements and innovations that helped shape the future of the genre.

In 1988, Atari released a port of *Xevious* for its own struggling Atari 7800 ProSystem. The instruction manual for the game sets the stage with some brief back-story, explaining that the dreaded Xevions are a race that was forced to flee Earth ages ago to escape human tyranny, and now they're back in force to reclaim their planet. The only hope for

humankind is the powerful new Solvalou fighter plane, and, you guessed it, the world is looking for volunteers to take the controls.

As in the arcade game, your ship is equipped with two weapons. The first is the so-called "zapper", which is a very basic dual-barrel gun that fires straight ahead, and is used to take on airborne enemies. The rate at which you can fire is limited by the fact that you're only permitted to have three shots onscreen at any given time. Due to this constraint, it's a good strategy to keep your finger off the trigger unless you have enemies in view. The second weapon—known as a "blaster" in the very creative Solvalou vernacular—is a simple bomb that drops to the ground below for attacking tanks, anti-aircraft guns, and other enemy installments. The bomb creates no blast radius when it makes impact, so the destruction of ground targets requires a direct hit. To assist with this, you are provided with a reticle that floats around with you at a fixed position relative to your ship, thus eliminating the guesswork.

When playing this game back to back with the arcade version, you'll probably find the most conspicuous difference to be the screen aspect ratio—a necessary evil when reworking a game designed for a classic arcade monitor to look its best on a 4:3 television. For reasons known only to the people who developed the game, the playfield is cropped, which leaves a black border around the edges of the screen. As a result of these factors, the blaster reticle is much closer to your ship in the Atari 7800 version, but I didn't find this to detract from the experience.

Graphically, this game is definitely a step or two behind its arcade counterpart in terms of color depth and crispness of the sprites, but it succeeds in that it is unmistakably Xevious. All of the enemies are present and accounted for—rendered in bleak gray tones just like the original—and the colorful backgrounds have been translated nicely. The Atari 7800's MARIA graphics chip makes for a flicker-free display, even when large squadrons of enemies attack in unison. The arcade game features smoldering blast craters and a pulsing red glow that emits from some of the enemy ground units; sadly, these nice visual nuances are absent in the Atari 7800 version.

The repetitive background "music" of the arcade game has been successfully carried over, and the sound effects are faithful enough.

There are 16 "levels" in the game, but it would be more accurate to describe them as checkpoints; there is no break in play when you cross into a new section. When you lose a life, you are sent back to the start of the current area, unless you are more than 70% through it, in which case you are advanced to the next area.

The game provides four choices for difficulty level: novice, intermediate, advanced, and expert. I did most of my playing on the intermediate setting, and I was just as surprised as I was pleased to be greeted with a challenge very comparable to that of the arcade game.

I did find that the notoriously wretched ergonomics of the Atari 7800 Pro-Line joystick detracted from my enjoyment of the game; luckily there are well-

known and widely available alternatives. The trusty old Atari 2600 joystick is a capable stand-in, even if the mapping of the game's two-button controls to a single button is a bit of a drawback (ultimately, I decided that watering down the controls was a small price to pay for avoiding a bout of tendonitis).

As another novel concept for arcades in 1982, Xevious included hidden bonus items scattered about the levels that could be uncovered for big points and extra lives, and I'm pleased to report that these features were kept intact when the game was ported to the Atari 7800. Extra lives are awarded at 20,000 points, 60,000 points, and then every 60,000 points after that. You're going to need them, so be on the lookout for those bonus items.

This interpretation of Xevious is an example of an arcade port done right for a home console in the late 80's. Not only that, but it's arguably the finest shooter ever commercially available for the Atari 7800.

Unfortunately, by the time this game was released in 1988, the state of the art in the industry had advanced beyond the standard set by the arcade original six years earlier. This meant that most gamers looking for a premium shooter experience on a home console were flocking en masse to the competing Nintendo Entertainment System, which boasted an ever-growing library of arcade licenses that were hot at the time.

Nonetheless, no gamer who loves Xevious just for the sake of Xevious can go wrong with this well-executed version for the Atari 7800.
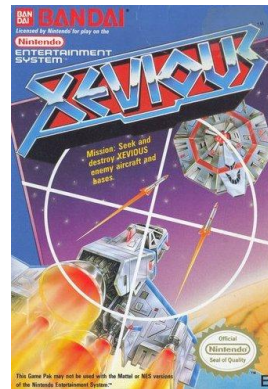
Grade: B

by Matt Daws

Xevious was brought to the Nintendo Entertainment System (NES) by Bandai in 1988, having already been released for the Japanese version of that system (the Nintendo Famicom) a few years earlier.

The instruction manual for the game is very light on back-story, but I think it's safe to assume that everything we learned from the Atari 7800 game applies here as well—namely, that you're tasked with piloting the Solvalou fighter craft into battle against the invading Xevion forces.

As you would expect from any game bearing the name *Xevious,* your ship is equipped with a simple air-to-air gun, as well as a bomb for targeting ground-based foes. The documentation team at Bandai evidently decided to eschew the silly names for these weapons that can be found in the manual for the Atari 7800 version of the game. Semantics

aside, the weapons here perform as expected, and are mapped separately to the two buttons on the NES controller.

When comparing NES *Xevious* directly to the arcade game, you will notice adjustments to the screen geometry very similar to those seen in the Atari 7800 version, including the shortened gap between your ship and the bomb reticle. The playfield, however, is not cropped in the NES version as it is on the Atari 7800—which I found made for a marked improvement in the visual presentation.
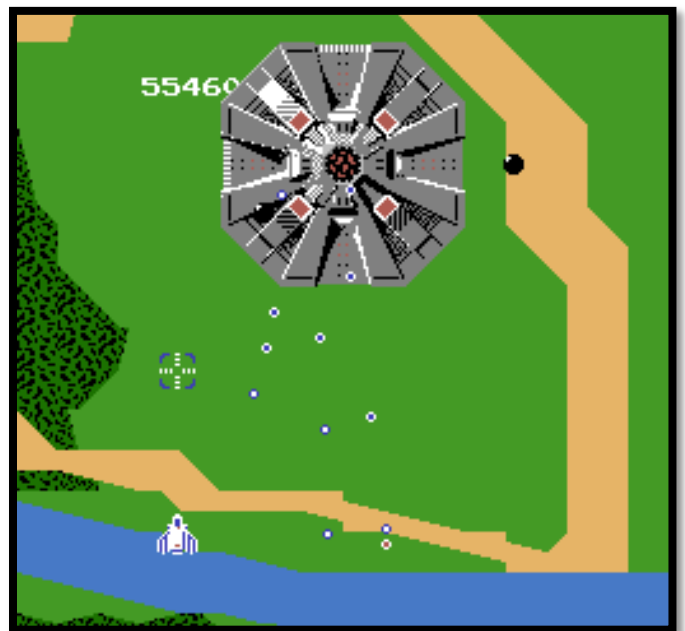
The graphics in NES *Xevious* are utilitarian at best, but there is definitely no mistaking this game for anything but its namesake. Some of the enemies—in particular, the circular ground bases—are rendered with a finer granularity than what is seen on the Atari 7800. The smoldering craters and pulsing red lights that emit from certain ground enemies—features that didn't survive the journey to the Atari 7800—are retained here, which greatly adds to the visual appeal. On the downside, the backgrounds are quite plain and short on detail. In fact, with the color scheme, jagged shapes, and harsh angles, there are times that this game bears more than a passing resemblance to Activision's *River Raid* for the Atari 2600 (I'll leave it up to the discretion of the reader to decide whether that's a good thing or bad thing). There is a scene fairly early in the game where your ship flies slowly for

several seconds over nothing but a solid blue background—which is presumably supposed to be water—and the lack of detail is so egregious that it almost feels as if you're playing an unfinished prototype. In contrast, this same scene on the Atari 7800 at least includes a ripple pattern on the background so it can be readily identified as water. The gradual scrolling of the pattern has the additional benefit of providing continuity in the illusion of forward motion; without it, on the NES, it feels like you're sitting motionless in space.

The NES graphics chip does not offer the anti-flicker capabilities found on the Atari 7800, so traces of that pesky phenomenon are detectable in this game from time to time, but I never found it bad enough to significantly detract from the game.

The music and sound effects are effectively carried over from the arcade version, and I didn't find them to be any better or worse than those found on the Atari 7800.

The level designs, checkpoint system, awarding of additional lives, and hidden bonus items are consistent with what was described in my review of Atari 7800 *Xevious,* so I won't repeat all of that information here.
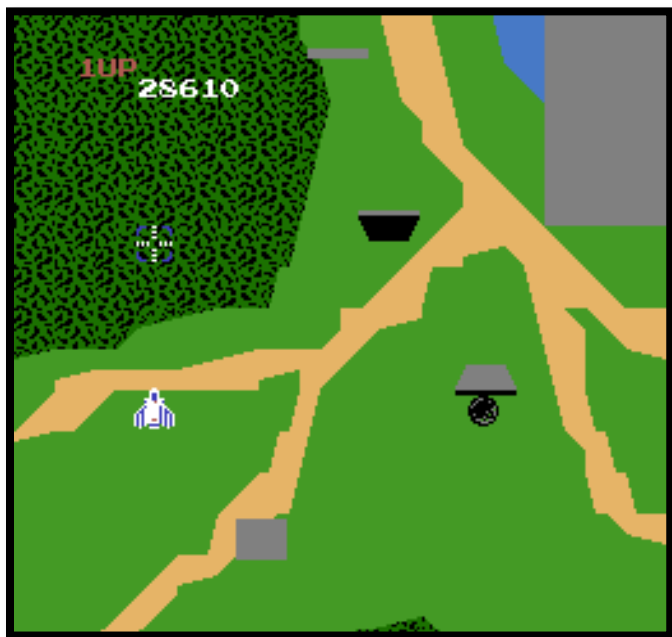

The NES game does not provide you with an option to select a difficulty level. Opinions are bound to vary on this omission, but it doesn't bother me at all. I rather like the idea of being forced to take on

the challenge that the game designers intended. Fortunately, the single difficulty setting that is offered is on par with the arcade version (as it should be).

The desirability of NES *Xevious* as a total package is largely a matter of personal perspective. For fans of the arcade game looking for a way to play *Xevious* at home in 1988, this game would have been a very nice choice, as the game play is virtually identical to the arcade original. All of the detectable compromises made in translating the game to the NES fall into the category of visual details that are not possible to replicate on the console hardware. As such, the subjective efficacy of this game as a port will be directly linked to the level of importance one attributes to graphical authenticity.

Of course, it would be naïve to assume that the entire demographic of console gamers in 1988 was familiar with an old arcade game called *Xevious.* The fact that history would eventually come to regard the game as a classic was irrelevant at the time, as the seeds of nostalgia for all things retro had yet to be sown, and players were always looking forward for the next big thing.

Atari was swimming against these same currents with their version of the game for the 7800, but if owners of that system wanted a decent arcade shooter, then *Xevious* was one of the only choices available to them. By comparison, the NES market was burgeoning with hot new titles such as *Gradius*

and *1943* that offered improved graphics, faster action, and upgradable weaponry.

Due to its ill-timed release, *Xevious* will probably be remembered by most as not much more than a bargain bin cart for the NES. Nonetheless, as a fan of the arcade game, I thoroughly enjoyed this rendition of *Xevious.*

Grade: B

Circus Charlie
continued from page 94

find this as simple as swinging from vine to vine ala Jungle Hunt, it's much more difficult than that). In between the trapezes are trampolines that Charlie can drop onto to catch the next trapeze. It is possible (although harder) to swing from trapeze to trapeze but this is a technique that I have not yet mastered.

Once you complete the trapeze act, the boards cycle back through to the flaming hoops act but at an increased level of difficulty.

Overall, despite not being arcade perfect, Circus Charlie packs a hefty challenge to keep home arcaders jumping for more.

Grade: A-

New for ColecoVision!

by Rob Maerz

The predecessor to Bubble Bobble, Taito's Chack 'n Pop was released to the arcades in 1983. Now, CollectorVision releases another B rated title in the same vein as Coleco would have done back in the day.

Your character is a yellow fish with legs (works for me!) named Mr. Chack'n. The object of the game is to free the hearts from their cages by dropping bombs from your left or right side. When released, the hearts float up towards the exit where they destroy the brick wall allowing you to exit and move onto the next maze. Along the way, the Monstas are the bad guys that hatch from their eggs and will chase you down. Running into them is fatal but you can kill them off using your bombs. Bonus points are awarded at the end of the round if you kill all Monstas without destroying any eggs. Additionally, if you kill off more than one Monsta with a single bomb, you can collect a fruit for bonus points. There also exists a "super heart" power-up which allows you to freely move a speedier Chack'n around the maze for 10 seconds and kill off the

Monstas by simply touching them.

There is a time limit to complete each maze indicated by the character called the Mighta. The Mighta appears at the top of maze pushing a boulder towards the exit to seal it off. When Mighta is close enough to the exit, five more Mightas will appear to help assist in pushing the boulder to seal off the exit. When the exit is sealed off, you lose a life.

The game starts off nice but, reminiscent of Amidar for the Atari 2600, the game moves noticeably slower than the arcade version – especially when you reach maze 3. I found myself pushing my joystick extra hard as if it would make Mr. Chack'n move faster.

Collision detection is suspect in that narrow escapes from the Monstas are impossible – liken it to the "in the grasp rule" in football or the "in the neighborhood" double play in baseball.

There's a strange graphic glitch that occurs when a Monsta and Chack'n are about to touch in that the Monsta will slide into what looks like a black rectangular mouse dropping on a computer screen.

Another glitch lies in the pause feature. At times, pausing will crash the game so I would advise not using it at all.

The graphics are done up nicely in most areas. Chack's fins and tail are animated as he moves around the colorful mazes. In other areas, I couldn't tell if the Mighta was a squirrel moving backwards or the letter R pushing a weisswurst.

The audio effects get a top grade all around - this includes the introductory, background and end of round music - a job well done in that regard. You will notice, however, that the music will let you know when the game is slowing down as it will do the same.

Despite these flaws, this is an addictive and fun game to play. However, I do feel that the product comes up short and with that there is a degree of disappointment. If those rough spots I mentioned were smoothed out before the cartridge were released, then I think you're looking at a top grade.

Grade: C+

Arcade Perfect?

According to my review: "no." *But*, compare the first two mazes pictured in the review with the first two mazes in the arcade version pictured below and it's impressive!
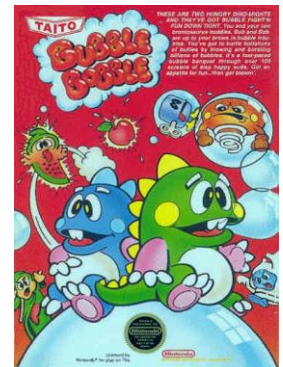

Bubble Bobble

Platform: NES
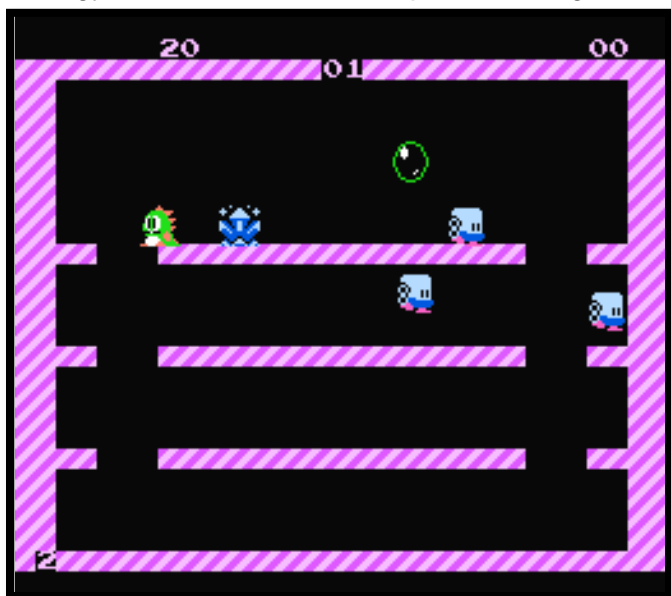
Released by: Taito, 1988

by Daniel Castaneda

Bubble Bobble is a well-known game released by Taito in 1988 and based on their popular arcade game of the same title. The game achieved some popularity and received many ports on systems such as the NES, Game boy and Sega Master System. But, this review is for the NES version.

The game opens up to one of my favorite startup screens on the NES: the catchy music plays and you are at the start screen. The screen is fairly basic, giving you the options to select one or two player mode, to continue a game or to enter a password. The controls are as follows: the B button fires a bubble while A jumps, and while these seem basic there are a few strategies one must employ while playing this game.

Each level consists of one screen and multiple platforms that one must traverse in order to attack

the enemies. Early stages are simple, but later stages some platforms can only be reached from a certain side or are not accessible at all, requiring strategy in order for one to complete the stage.
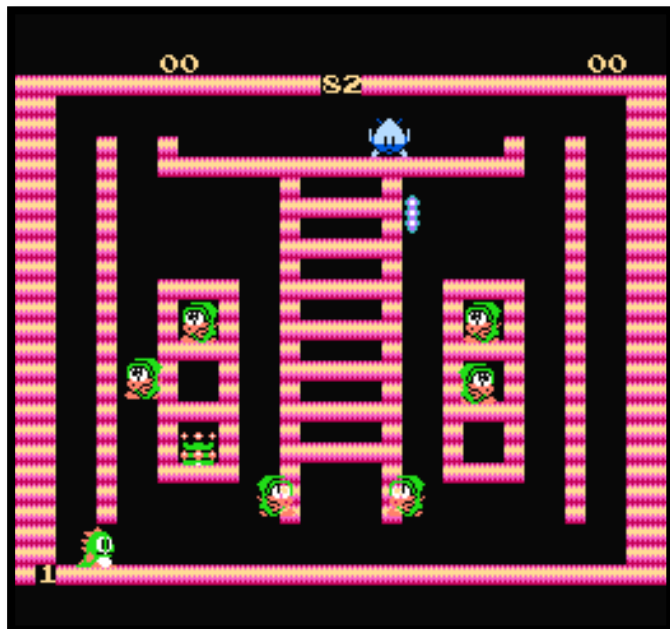

Along the way you encounter several power ups to assist you in your progress: lightning, fire and water bubbles which can be used to defeat enemies; an umbrella which skips you several stages ahead; the EXTEND bubbles, which when you spell "extend" gives you a bonus life and advances you to the next level.

Graphically the game does not blow you away. As to be expected from an NES arcade port, however, they are pleasant to the eye. The enemies and character sprites are cute and colorful and add to the light hearted atmosphere of the game. Although

only one song plays throughout the game, the catchy music is easy to listen to and done well enough that it is not a problem.

The best way to play this game, however, is with another player. I have played this game solo quite a bit, but it does not seem to have the same feel as when you have someone there with you. In fact, many of the stages seem to have two player mode in mind. With over 100 stages (not including the bonus Super Bubble Bobble mode) and it being much easier to beat if another player is there with you it is best to have someone else join the fun.

Overall this is a very good game. While some might not like the aesthetics, it provides lots of replay value and challenge. Finding out how to access the secret boss is not obvious and takes some trial and error. But, once he is beaten you unlock Super Bubble Bobble mode which is a harder version of the game. The only issue is that it can be boring and a bit repetitive after a while when playing single player, so this one is perhaps best saved for when you have company.

Grade: B

Bubble Bobble Neo!

Platform: Xbox 360

Released by: Taito, 2009

By Franka Maerz

The first thing Bubble Bobble fans will notice right off the bat is that the enemies in this release move much faster and fall through the "open" levels at a fast rate of speed. For someone who is used to getting all the power ups, enemies falling from the sky unexpectedly makes it more challenging.

In the original Bubble Bobble, it's consistent: with lots of play you know where the enemies are going to go and what they're going to do. With this version, it appears dynamic whereas the original version is more predictable.

When an enemy expires and pops out of it's bubble, it moves really quickly, so you have to watch out. In levels with ghosts, they shoot their fireballs right away, whereas in the original, they are a little slower to do so.

A level that I would normally clear rather quickly takes much longer in this release. I've found that you die a lot easier and overall the game is more difficult than the original version.

The graphics are very good in the Xbox release and looks very much like the original. The controls are definitely not nearly as good using the Xbox controller compared to an arcade joystick. Lastly, the music sounds cheesier in this version.

There's also an option to play the Arrange mode where the levels are different and up to four players can play at the same time. If you really like the original you may not like this release. The charm is lacking in this release.

Grade: C

Classic Brick Breaking Action For the 7800!

Crazy Brix

Platform: Atari 7800

Released by: Bob DeCrescenzo, 2011

by Rob Maerz

Bob DeCrescenzo continues to fill the gaps of the Atari 7800's meager library with the release of a new classic brick breaking game. DeCrescenzo combines elements of Arkanoid (sans power ups), Super Breakout and his own creative touches into a brick breaking Frankenstein called Crazy Brix. There's nothing revolutionary here but there are some interesting and whimsical wall patterns to break apart.

Like Arkanoid, there are a variety of wall patterns as you progress through the boards (32 total). The first 32 boards are played sequentially and thereafter the difficulty increases and boards are presented at random. You'll recognize some of these patterns from Arkanoid and Super Breakout while others are Bob DeCrescenzo creations.

The game can be played by one or two players using joystick or paddle controllers. There are three difficulties of play to select from the onscreen menu: Easy, Normal and Hard.

You start out with two balls at the beginning of each board and life. On some boards you are equipped with two paddles while others you only have one. You lose a life when you miss both balls before completing a board. When you knock out all the bricks in a wall, a new board begins fresh unlike Super Breakout where the next wall is drawn immediately with the ball still in play.

You earn 10 to 150 points per brick and the point value is based on the location of the brick: lower bricks earn fewer points and higher bricks earn more points. As long as you have two balls in play, you will earn an additional 100 points for each brick demolished. Every 10,000 points you will be awarded an additional life.

Graphically, instead of the bricks simply disappearing from the screen, the bricks dissolve

which is a nice touch. Additionally, the color patterns and gradients are very attractive.

The audio effects vary from level to level. On some levels the bricks make an explosive sound while on others they make musical notes – at times it sounds like your Atari 7800 is creating music.

DeCrescenzo produced some whimsical brick patterns: the Atari "Fuji" symbol, a Combat tank, a key from Adventure and a Space Invader to name a few.

Crazy Brix is a nice blend of old and new that brick breaker fans are sure to love. Crazy Brix is available from the online store at AtariAge.com
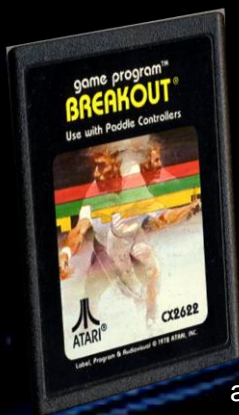
Grade: A
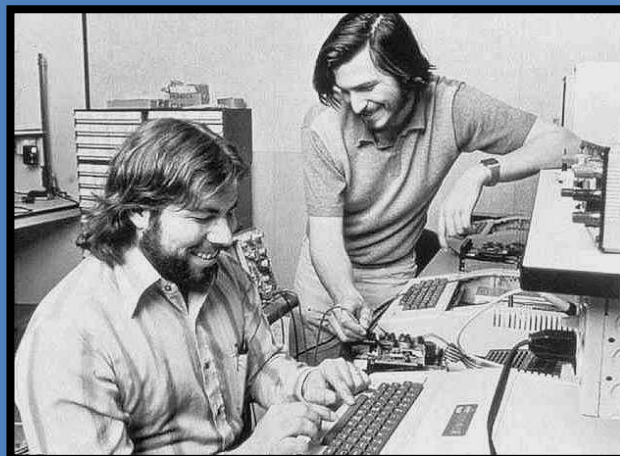

Breakout

Platform: Atari 2600

Released by: Atari, 1978

by Rob Maerz

Steve Jobs and Steve Wozniak collaborated on the arcade version of this brick breaker released by Atari in 1976 and ported to the VCS in 1978. Atari enhanced the VCS Breakout a bit with 12 game variations that can be played by up to 4 players (although, not simultaneously – two players at a time and alternating).

Creators of Breakout: The late Steve Jobs (right) with Steve Wozniak.

There are three different games on this paddle controller cartridge: Breakout, Timed Breakout and Breakthru. Then, there are four variations per each game: standard, steerable (which allows you to guide the ball through the wall by turning the paddle), catch (allows you to catch the ball when it hits your paddle so you can stop, aim and release) and invisible where you can only see the bricks when the ball strikes them.

My preference is the traditional vanilla Breakout game. But, if I need to blow off some steam, the steerable Breakthru game is a nice variant when you "feel the need to break stuff."

The arcade game had a monochrome display with a color overlay. In the home version Atari spruces things up with a rainbow wall of bricks and colored paddles. What are missing are the borders of the individual bricks, however. The audio effects are the soothing beeps and boops of the ball hitting the bricks, paddles and walls of the playfield.

The traditional Breakout (2600).

Breakthru (2600): ball breaks through all the bricks in its path.

Don Knotts in the 1978 Atari commercial for Home Run and Breakout

On the rarity scale, Breakout is a common cartridge that can be had for about 50 cents to a dollar (and maybe even free!). Although Breakout is only slightly more advanced than Pong, it is representative of a baby step in the technological progression of video games and therefore has *some* historical significance. Despite the simplicity, Breakout is a classic and *the* original brick breaker that has stood the test of time in the fun department.

Grade: B

Super Breakout

Platform: Atari 2600

Released by: Atari, 1981

by Rob Maerz

What does an astronaut have to do with brick breaking? Nothing! But, the Atari marketing department wants you to use your imagination to believe that "you're in a one-man space shuttle travelling through the heavens at the speed of light" and the walls are "layers of a brightly colored force field."

Super Breakout is the port of Atari's arcade game that was released in 1978. The cartridge features the standard Breakout along with the Double, Cavity, Progressive and children's game variations. The variations explained:

Double – Two paddles stacked and two balls played simultaneously

Cavity – Two balls captured within the walls that when freed can allow up to three balls to be played concurrently

Progressive – Multiple walls of bricks that descend continuously

Now, some of you may not be aware that Super Breakout, like its predecessor, was a black and white arcade game with a color overlay. One of the nice graphical touches of the Super Breakout cartridge is the simulation of the overlay which you can see as the ball ascends and descends the playfield.

The only graphical misstep possible (I mean we *are* talking about a Pong variant here) is that the bricks are not individually outlined. But, trust me – you won't miss it.

My favorite game variation, Double, is also the one with the most abrasive sound effects. Once the balls start going brick crazy, the sound effects sound like a symphony composed by hyperactive and informally trained guitarists.

Progressive is a nice variation for those of you who have little patience in hitting every single brick on the playfield before a new wall is drawn. Instead, new walls are drawn and descend from the top while the ball is still in play. So, if you typically have difficulty knocking out those last bricks in a wall, at least you'll be productive in this variant opposed to endlessly bouncing the ball off of the three outer walls.

Atari squeezed some more juice out of the brick breaking fruit with Super Breakout. Like Breakout, Super Breakout is a common cartridge that can be had rather cheap so it's not a matter of deciding which cartridge to buy. Both games have variations to warrant owning both cartridges. However, the variations presented in Super Breakout make this the better cartridge of the two.
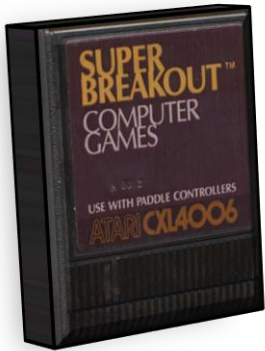
Grade: A-

Super Breakout (2600) variations from top to bottom: Breakout, Double, Cavity and Progressive

Super Breakout

Platform: Atari 8-bit

Released by: Atari, 19

by Rob Maerz

This port of Super Breakout to the Atari 8-bit computer is close to arcade perfect. All the variations previously discussed are here: Breakout, Progressive, Double and Cavity.

In the graphics department, Atari gave each brick its own identity this time around and the audio effects appear to be arcade perfect. Woo-hoo!

This game is easier than the arcade version. When the game increases in speed and your paddle shortens up, the paddle is still roughly twice the width of that found in the arcade game.

Regardless, this is the best translation of Super Breakout available, And Atari kept with the 9-pin standard for their controller ports allowing you to use the iconic Atari paddle controllers to play the game – unlike the next version waiting on deck.

Grade: A

Super Breakout

Platform: Atari 5200

Released by: Atari, 1982

by Rob Maerz

While Coleco rocked the home arcading world with the ColecoVision and its stunning pack-in game Donkey Kong, Atari opted to package Super Breakout with their new and improved Atari 5200 Super System.

There are only minor differences between the 5200 Super Breakout cartridge and what was released for the Atari 8-bit computer. Like the 8-bit, all four game variations are packed into this cartridge.

With the 5200, Atari introduced us to its version of the analog controller. It has a nice keypad, some mushy fire buttons and a control stick that does not return to center. While the common joystick returns to center when you let go of it, the 5200 analog controller does not. While this works alright for games like Buck Rogers and Sinistar, it's downright horrible for maze games.

Atari would have been better off bundling a game that worked well with the analog controller – Pole Position, for example. On top of that, Atari introduced a new controller port on the 5200 that was not compatible with VCS controllers. So, forget the option of simply plugging in your Atari VCS paddle controllers to play Super Breakout.

If you can plug in a pair of paddles I'm sure this version is as good as that released for the 8-bit. But, the grade here reflects using the hardware that Atari gave its consumers and it wasn't a pair of paddle controllers. While the 5200 controllers work better than a standard joystick for Super Breakout, why should we have to compromise?

Grade: D

Atari 5200 Super Breakout game variations

Arkanoid

Platform: NES

Released by: Taito, 1987

by Eric Bailey, NintendoLegend.com

In 1987, prominent publisher Taito released a video game called Arkanoid for the 8-bit Nintendo Entertainment System (NES). This was a "ball and paddle" title, much like the legendary Breakout series on Atari consoles, and first appeared as an arcade cabinet. Few other cartridges sported such brick-busting game play, like Thunder and Lightning or Crackout, and Arkanoid proved to be the definitive example of the genre.

The goal of Arkanoid is to clear each of the 36 levels by breaking the blocks in the upper portion by bouncing a ball into them. The ball travels up and down, being bounced by a paddle that can move back and forth across the screen at control of the player. Most blocks are breakable, some are not, and some may take multiple hits, but the stage is cleared when all removable bricks are busted. The exception is the final level which, oddly enough for an action puzzler, features a boss fight with the

inter-dimensional being Doh, who appears as a red-wireframe Easter Island-style head.

Yes, there is even a plot involved. Apparently, Arkanoid is the name of the mother ship that was destroyed, and the paddle that the player controls is actually called Vaus, and represents an escape pod of sorts, a ship that is the last vestige of hope for its people. In a sick twist, Doh is manipulating fields of space and time in order to use pieces of the former mother ship, represented by the bricks, to block the courageous escape of Vaus to safety. The adventure can be enjoyed by one or two players.

Rather be content with simply a dexterity test of repetitive bouncing toward brick-breaking, though, Arkanoid raises the complexity stakes by throwing in a couple wrinkles; namely, enemies and power-ups. The enemies are straightforward enough: Two-dimensional sprites representing three-dimensional figures, who drop in from slots on the ceiling, and slowly meander throughout the play area, around the blocks. Hitting one kills it, and the ball bounces off. There are four varieties: A cube, an outlined pyramid, a triple-sphere, and a cone with a slice in it. Actually, to the more imaginative players out there, it may even appear as a little wizard, with a robe and hat.

The power-ups are what truly push Arkanoid to another level, and make the player feel strong, whether falsely or not. There are seven varieties: Ball slowdown, paddle widening, an extra life,

splitting the ball into three separate balls, becoming able to catch and release the ball at will, being able to fire projectiles, and opening the warp, which appears in the bottom-right corner and, when accessed by the ball, skills ahead a few rounds. All the power-ups are nice, and collecting a few in a row can serve to make a level much, much easier. They are sometimes dropped, at random, from destroyed bricks.

Extra lives are usually earned at point intervals, but there are no continues in Arkanoid. If the player reaches Doh, who has about a dozen hit points and spits spinning flat squares reminiscent of the boss from Starfox, and is unable to defeat him, it is Game Over, and that player must start from the very beginning if he or she wants another shot.

Arkanoid was originally packaged with the Vaus Controller – a one-button unit with a rotating dial. This allowed for analog control, meaning that a player could move the paddle back and forth at a varied speed, like instantly fast or minutely slow. Such fine measure of control is lost using a typical directional-pad controller, although Arkanoid can certainly still be enjoyed that way. The single fire button is, of course, used with the rocket-firing power-up, the catch-and-release power-up, and selecting items on the menu.

However it gets played, Arkanoid is a classic, standing the test of time as the definitive example of the paddle genre and providing an overall worthy challenge as well. And a true challenge it is, considering some of the tricky level designs, how fast the ball gets, and the sheer endurance required. Nonetheless, it is a sublime match for reflexes, dexterity, angular perspective, and all-out fun.

The animations are smooth, the overall visuals are colorful, and the entire experience has a distinctive

look. Backgrounds emphasize primary colorization as they range from a blue pattern to red circuitry and even a writhing green mass of worm-like shapes. The enemies are a nice touch of faux 3D, and Doh's presence is appropriately outstanding. Typically puzzle games can rest content to just outline the shapes well and give the player some flashy colors to look at, but Arkanoid does go a little further to show off the chops of its graphics programmers.

Oddly enough, most of the game lacks background music, even on the title screen. The overture to start each round is nice enough, to the extent that one could even say the resonant orchestration is very impressive for the 8-bit sound limitations, but the strength here is going to be in the effects. The "ping" of the ball hitting the bricks varies depending on the block type; for example, invincible blocks emit the highest pitch. The sound is very Tetris-like, and is never too grating. Otherwise, really, this is certainly not a sound-pushing sort of game.

Breakout on Atari may have been the original brick-breaking ball-and-paddle archetype, but Arkanoid arguably perfected the art. Sure, the concept is not exactly the original, but when placed against the rest of the NES library, there is definitely a defensible element of innovation here. Arkanoid broke a mold or two, and offered future gamers a historically pristine example of quality gaming as a result.

From the fanciful level designs that range from a Space Invaders homage to an ice cream cone, to the fast-paced twitch action demanding a player's absolute focus, Arkanoid is a fantastic action puzzler that blends mind-bending puzzle strategy with tense on-screen action elements. A true classic, a worthy battle, it is a game that will be fondly remembered for a long time. But it is not perfect: Replay value is limited with its depth and lack of editing or game play variety, and its range of level designs has not exactly aged well upon closer examination. At its core, it remains a fine 8-bit NES video game, but not a matchless masterpiece. Still, it is simply great, and gets an A-.

Grade: A-

Medieval Mayhem

Platform: Atari 2600

Released by: AtariAge, 2007

by Kevin Armstrong

Warlords by Atari - first a 2600 cartridge and then a classic coin-op cabinet - is a game that has never been well emulated for the home experience. This excellent four-player paddle game combines Pong with Breakout into a fantastic battle of frantic action and precision control.

For those who have never played the game, each player controls a shield defending one castle tower in each corner of the screen. In the coin-op version, a dragon flies into the center of the arena, launches a fireball from its mouth and this molten orb of flame bounces across the screen. A player generally uses his shield to deflect the fireball away from his castle walls (if the walls are hit, some of the bricks disappear) but the player may opt to hold his attack button instead. Doing so will keep the fireball in his possession and he can move to face

another player and let go of the projectile. The danger is that if the player holds the fireball for too long, the weapon spins angrily in his custody and may begin to erode his own castle.

It would come as little surprise to hear that few modern gamers have enjoyed this classic as it has not made the transition home very successfully over the years. This is ironic when you discover that the coin-op arcade game was actually originally developed *from* a home game, the original Warlords programmed by Carla Meninsky for the Atari 2600. Warlords has been released in recent years as both an Xbox Live Arcade game (handled with analog thumbsticks) and also as a TV Plug-and-Play game from Jakks TV Games. The Jakks version is closest to how the coin-op version played however the controller is based on the Atari 2600 paddle control set and as a result, only allows for two players maximum.

Fortunately, an amazing and terrifically accurate homebrew version of coin-op Warlords has been created for the Atari 2600, a game called Medieval Mayhem.

Medieval Mayhem looks very much like the original 2600 Meninsky game of Warlords at first glance. But, delve deeper into the title and it is soon obvious that the developer, Darrel Spice of Spiceware.org, has instead accomplished a near perfect re-creation of the arcade machine.

To detail this achievement it is necessary to list the shortcomings of the original Warlords for the 2600 but this is by no means intended to be a list of complaints. The original title was a fantastic game and deserves its spot in the history of great games

made for the Atari VCS. However today, decades later, the original title has been superseded by Medieval Mayhem and here are several reasons why:

Beyond the cool factor of seeing a dragon appear on screen, it is very impressive that Medieval Mayhem brings back the original beginning of the Warlords coin-op game.

Classic 2600 Warlords merely launched a dot on the screen which was fine for back in the early days of the VCS but now seeing the dragon return to breathe his fireball is thrilling.

One very important detail of that fireball which also makes an appearance in Medieval Mayhem is the fact that the coin-op's multi-ball mode has also been incorporated. The original classic 2600 Warlords only displayed a single ball on the screen at any time but Medieval Mayhem has succeeded in ramping up difficulty just like the arcade machine by having a second fireball appear followed by a third and then a fourth if the game plays on for too long.

The coin-op version of Warlords identified each player with a symbol or heraldic image behind the walls of each tower,

partially to give the player an icon to identify with, and partially to increase the sense of danger when the protective walls no longer surrounded the symbol. With the classic 2600 title, small stick figures could be seen behind the walls and each player had a color to signify themselves but this

was a minor identifier compared to the heraldic symbols of the coin-op cabinet. Medieval Mayhem brings back the bigger icons, albeit less detailed versions.

The desire to keep the fireball in your possession is very strong in Warlords as it can be deployed as a weapon with a

vengeance when your opponents aren't being careful with their shields. The coin-op game made the fireball begin to damage your own walls if you held on to it for too long, something the original classic 2600 title did not have. The only risk incurred for ball possession in the 2600 game was when you released it; the ball speed would always be fast. Luckily with Medieval Mayhem the wearing down walls effect is back. Admittedly the graphic does not show as clearly as in the coin-op machine what is occurring however any player will soon be able to tell they need to release the fireball pretty soon or suffer dire consequences.

Above and beyond recreating the arcade experience on an Atari cartridge, Medieval Mayhem also

provides many more game play options than its predecessors. By rotating the paddle, the player can move his menu cursor and choose from an assortment of options. Selections such as ball speed, A.I. difficulty, number of rounds till the game ends, etc. can all be chosen. It is important to note that these options did also exist in the classic 2600 Warlords as well, though Medieval Mayhem has multiples in each category. For example, ball speed originally in the VCS version could only be set to fast or slow but Medieval Mayhem has four different levels of speed. If choosing a single player game, the player can select which corner they want to appear in and there is also an option to choose which of the four players can catch the fireball or merely ricochet the ball instead. This menu

selection is quite different from the classic 2600 title which used the Game Select buttons on the console and to be honest, the Medieval Mayhem menu feels more intuitive by today's gaming standards. It also gives a direct visual clue as to what the player is selecting rather than just a basic number, causing players of the original 2600 title to reach for that game's manual to see what their numbered selection corresponded to.

One final bit of praise for this fantastic homebrew must be for the animations and sound. At the end of a round, a well illustrated knight marches across the playfield hoisting the

winning colors for that round of play and the music heard is both catchy and clever. If the game is left idle for a few moments, there is even an attract mode demo that will play.

Not enough compliments can be showered on Medieval Mayhem: it is simply one of the best homebrews ever made. And considering how difficult it is to recreate the Warlords coin-op experience in the home without having an original arcade machine, Medieval Mayhem is an excellent alternative and great value for the price.

Get it today!

Grade: A

@RcadeMag

A Conversation with Carla Meninsky

by Will Nicholes

In April 1981, one of the most addicting games to be created for the Atari 2600 was released.

Warlords took the "knock down some bricks" formula established by *Breakout* and expanded it to all four corners of the TV screen, with four-player free-for-all action.

The basic game play of *Warlords* - four (human or computer) players protecting their own corner full of bricks from the onslaught of a fireball - has held up well, with both official slick, 3-D updates from Atari, and an unofficial homebrew homage like *Medieval Mayhem* being produced in recent years (Atari also released a coin-op version of the game in 1980).

Warlords on the Atari 2600

Along with Larry Kaplan's *Kaboom!*, *Warlords* is one of the few "must have" paddle games for the Atari 2600 platform. The mind behind the 2600 version of *Warlords* was engineer Carla Meninsky, who also coded *Dodge 'Em*, *Star Raiders*, and an unreleased prototype of *Tempest* for the 2600 before moving on to greener pastures.

Meninsky no longer codes games, having left the engineering world for a career in law, specializing in financial litigation. She's currently focusing on the field of financial crime and regulation while studying at the London School of Economics.

In early 2011, I had a chance to speak with Meninsky about her early days with Atari and what she's been up to since.

I read in Chris Crawford's book that you came to Atari through a headhunter... had you been to college at that point? Was that your first job as a programmer, or had you programmed before?

Meninsky: Chris' story is not quite correct. I actually came to Atari through Warren Robinett. Warren was a roommate of a group of ex-Stanford AI people I had formed a computer animation group with and we ha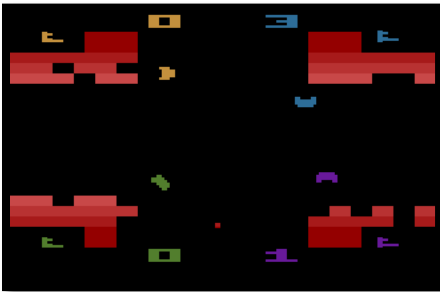d been trying to figure out how to technically build an animation system. Warren basically said, come to Atari and do it and got me the interview with George Simcock, Dennis Koble's boss at the time.

I didn't know anything about video games, other than being addicted to *Adventure*. I had seen *Pong* in a hotel room in Palo Alto, but had never played it. I certainly had never thought about programming them.

At the time, I had graduated from Stanford University with a degree in Psychology, which isn't as it sounds. Stanford had gotten rid of what they had called "clinical" psychologists and had a neuroscience group ("Physiological Psychology") that was working with the med school on modeling brains and behavior. I had started at Stanford as a math major and soon switched to psych as it was very sexy and exciting-new discoveries daily and I spent all my time in labs with monkeys and computers (statistical modeling).

I had learned very rudimentary FORTRAN in high school (my mother was a programmer before she retired) and took a PASCAL class and a PDP-11 class in college. But I was interested in vision and I was a bit of an artist, and somewhere along the way had

gotten the idea that computers could be used for animation and artists, because "in-betweening" was so tedious. When I got out of college, I spent a lot of time calling and writing to people about my "vision" and wouldn't they like me to build a computer animation system for them. Of course, everyone thought I was nuts; remember this was the late 1970's-who would want that, maybe the military, but we don't need color. Which is how I met up with the people at the Stanford AI lab and we started having animation meetings. To support myself, I did random contract work. It was also about this time that I met up with several sleazy headhunters, who would send me on these wild goose chases. A degree in psychology was not of much use to anyone in the valley.

However, Atari was very receptive. I gave them my grand idea about computer animation and they said, sure, you're just what we need. So I came on board.

It was a bit of a strange time. The Activision folks had just left and people were in a bit of a daze. Some people had been hurt that they hadn't been chosen to go along. Others like me were brand new. Dennis Koble comes to me and says, forget the animation thing, we need you to write games. He hands me a typed out list of game titles that they had come up with in a brainstorming session-no descriptions. Get started.

Of course there were no manuals or anything of how "Stella" worked. But, luckily, they put me in an office with Chris Crawford. Chris was amazing, odd, but amazing. He had run a road show for physics before coming to Atari, so the first thing he did for me was act out (literally) the 6502 processor.

How does one act out the 6502? Did he literally JMP around the room?

Meninsky: Yes!

That must have been a sight! So that typed list of games, was *Dodge 'Em* on that list and you picked that as your first game, or did you work on another game first? You mention being addicted to *Adventure*, was that the Warren Robinett version, or the text-based predecessor?
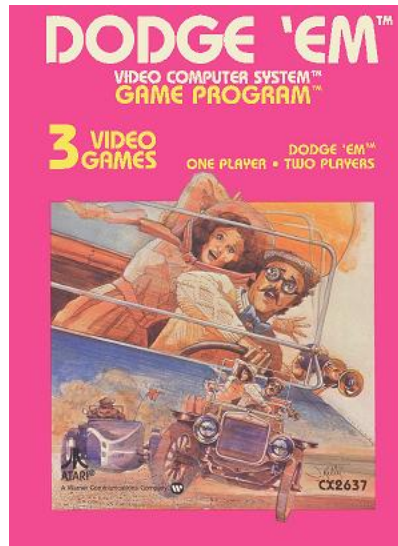
Meninsky: Text based! I spent way too many late nights/early mornings in the computer labs at school playing *Adventure* on UNIX machines when I should have been doing Other Things.

I don't remember what Warren was working on when I first got to Atari, 2600 *Adventure* came later. Someone was working on a cool maze game that never went anywhere (that happened a lot). That may have been Warren, but, now that I'm thinking about it, it was probably Rick Mauer.

I did *Dodge 'Em* first. I think it was listed as something like car crash maze game - the name came later from marketing. Trivia bit: Jim Heuther was the model for the box artwork; I think Heuther was working on *Football* and I think Stewart was doing *Baseball*. But there were a bunch of car games at that time, too. Fulop was doing *Night Driver* when I got there and Koble had just finished something Rally, Rally something, ugh, too long ago.

Coin-op had just finished *Asteroids*. I spent way too much time downstairs in coin-op playing *Asteroids*, and then *Missile Command*, and then *Battlezone*, and then *Centipede*. After *Dodge 'Em*, I went straight to *Warlords*

which was on the list as Kings in the Corner break-out game. I would like to set the record straight here-I did the 2600 game *before* the coin-op game even existed! I think that was the first time a coin-op game derived from the console game. Then I started *Battlezone*. But there were some weird things going on, my office was in a trailer in the parking lot, and I left to go somewhere else.

However, Atari contacted me about turning *Dodge 'Em* into a marketing tool for Mercedes garbage trucks. They had given it to someone still there to do, but they couldn't figure out the code (I had discovered a way to cheat a cycle out of the machine which later drove Mike Albaugh nuts when he was assigned to convert all the existing games to a new processor). I think Mimi Doggett had already done the truck graphics. Anyway, I did it in my spare time for free (!!!) while I was still at the other place-it took a very short time-and while I was doing it, Atari essentially talked me into coming back and I did *Star Raiders* as the first thing. They had figured out how to do bank-switching to get 8K of memory. I think *Star Raiders* may have been the first to make use of it.

So I was back after 3 months and everything had changed-people had left to start Imagic, new management, new buildings, new game machine, and bonuses. They made me a game group leader, which meant I did game design (read: now I got to put things on the list) and traveled a lot. I even got to meet the Muppets!

The Muppets? Like, Kermit and Miss Piggy?

Meninsky: Atari at that point was into franchises big time: *Raiders*, *ET* and *Star Wars*. BUT, any game idea had to be approved by the owner of the franchise-so George Lucas came by one day. Game design meant brainstorming sessions with franchise owners about how characters/story lines fit into what we could make the games do. It also meant Atari was spending incredible amounts of fast money convincing franchise owners that games were the fastest growing entertainment segment and they were foolish not to hop on board. The new management had decided that kids' games were going to be big money and started hiring more women to do the games. I, being of the female persuasion, was made the group leader. So I traveled to New York to meet with Kermit and Miss Piggy (really I met with Jim Hensen and Chris Cerf) for brainstorming sessions and dinner at 21. I also met with the [Atari] creative brains from Grass Valley somewhere outside of Philly to investigate a new theme park, to see how we could stamp the Atari mark on rides and entertainment. Atari was owned by Warner Bros. so there were several attempts to try to turn various popular

WARLORDS

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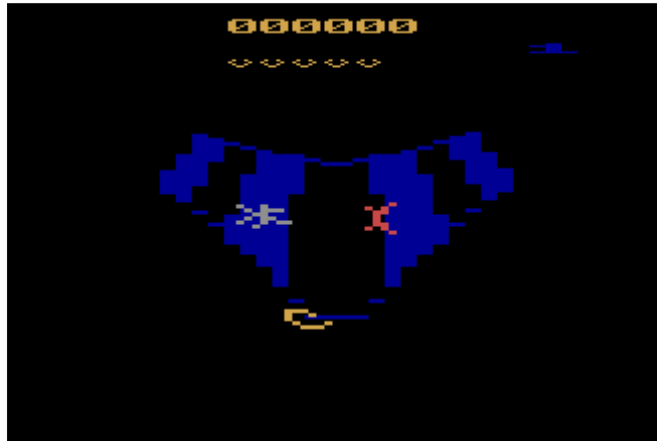
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movies/characters into games. I remember several long weekends at fancy resorts devoted to such brainstorming.

I would come back with long lists of game ideas. Marketing and management would decide which ones they liked and would hand them off to developers. I have to admit, though, while I enjoyed the creative aspects of the job, I still wanted to create games that were strategically challenging for adults, as well as technically challenging for me. And I always had at the back of my mind that I wanted to do that computer animation thing. So, while I was supposed to be doing Other Things (I spend most of my life avoiding Other Things-like now I should be writing an essay on standardized contracts in international law), I started working on *Tempest*, mainly because people said it couldn't be done on the 2600.

You have to understand that this was a very different model for Atari game designers. Previously, we would noodle around with an idea, get some bare minimum thing up in the lab that could be moved about and people would come by and play it-and give feedback. We were a very close knit group. Games changed a lot over time or were abandoned. Eventually we would tell marketing we were done and they would set up a series of focus groups in Sunnyvale with 12- to 20-year-olds who would give more feedback. Only if that passed, would a game be released. Now, marketing was in from the beginning saying which games would be developed. The

old-timers were very disgruntled and more people left.

Eventually, I too left to go join a start-up doing high-end computer graphics run by Martin Newell (of teapot fame) from the University of Utah, which was one of the places I had contacted 6 or

Atari 2600 Prototype

so years before about my animation idea. This became a theme. I eventually ended up at Sun Microsystems doing high-end computer graphics firmware because of Louis Knapp, another person I had contacted way back when, who still remembered me. The Sun computers with firmware I had written were used by the various new animation companies that were starting up. The ironic thing was that I was denied a job at PDI-who was finally doing what I had envisioned only 10 years later-because they felt I had been tainted by my game experience. The new generation of computer animation companies only wanted academics who had published at Siggraph.

So is there an actual "Mercedes garbage truck" version of *Dodge 'Em* out there someplace?

Meninsky: Yes. I have no idea how that came about and heard nothing more about it once I was done. Although... actually, I can guess, now that I think about it. Two things: Atari always bought in

bulk to get that cost break-this was often a disaster and they were left with warehouses full of unused stuff. However, outwardly, Atari wanted to show how much money they were making. One way they did this was every executive got a brand new Mercedes. When Atari crashed, they found a warehouse of unused Mercedes. I bet someone got a fleet discount and in return they got a Mercedes *Dodge 'Em* game.

To give you an idea, I've been watching the third season of *Mad Men* on DVD-even though that was supposed to be 20 years earlier, it *so* reminds me of Atari. There's a scene with a John Deere tractor that could have taken place at Atari.

You worked at Electronic Arts and Liberate Technologies... I'm familiar with EA, but what did Liberate Technologies do?

Meninsky: Liberate made set top boxes for different cable systems that integrated a web browser with cable programming and TV.

What inspired you to leave engineering and go into law?

Meninsky: After managing a group of engineers to deliver a new 3D graphics library (XGL) for Sun, I started a computer contracting business. Microsoft had just gotten sued for not paying contractors benefits and the dynamics changed in the valley for contractors. So, instead of getting out of contracting like everyone else, I decided to incorporate my consulting business.

Other contractors came to work for me. Business was booming. I would do graphics projects that were outside a company's main business, mostly hardware startups, like Kubota, 3Dfx, Cirrus Logic, primarily acting as a

systems architect. Several times I would come in to a company and their code would be a mess, the people who wrote it had left and the remaining engineers were still trying to use it for the next generation thing. I would rewrite the code underneath them and add the faster, better graphics to support the new hardware. Sometimes I just worked directly with the hardware engineers who were designing new hardware. I went to EA to start up a 3D graphics lab for them. EA wanted to do 3D *Road Rash*. I also did a terrain system for a WWII game for them. On several occasions I tried to get funding or venture capital to do my own thing, but no one was interested without a finished product and I could only go so far myself-by that time games were big productions. I think the WWII game at EA had over 30 people working on it.

At EA I met Carolyn Wales, who was this totally brilliant person. Carolyn and I decided to join forces doing our own style of video games. Again, we tried for venture capital and were told that no one would fund "untried" women gamers without someone who knew something about business (the insinuation was we needed men to be legitimate). Insulted and disgusted, Carolyn knew someone who had been granted a launch title for the PS2 and was working with a publisher, who desperately needed game programmers. We agreed to contract with them so we could get PS2 experience. BIG MISTAKE. What a disaster. It turned out Carolyn's friend had hired another programmer without telling us AND, as we soon discovered, that person had stolen code from another company which he was trying to use for this PS2 game. Carolyn and I weren't too happy about it. We tried to get

them to stop and when that failed, we had no alternative but to leave. Carolyn went to work for Liberate. My business was still thriving, so I took on another couple of jobs and eventually ended up contracting with Liberate.

But you asked how I came to be a lawyer. As owner of a consulting business with employees who were contractors, I negotiated a lot of contracts myself, fairly successfully. I suppose I should have had a lawyer doing this, but since I was so used to doing everything myself, it never occurred to me. But, that experience with the stolen code and negotiating the contract for our games startup, got me thinking, especially since that had not been the first time I had encountered the theft of code or of trade secrets in the valley and had to withdraw. About the same time, one of my ex-bosses got taken away in handcuffs for misappropriating code to start Avant! Then, soon after the PS2 disaster, I ended up suing my neighbor over some trees he cut down in my yard when I had been away for a week at Siggraph. I have to admit I kind of enjoyed the litigation process. I started thinking that getting a law degree could expand my business and maybe be the cred factor that the VC's were looking for. So, while I was frantically trying to complete a complex Liberate contract, working 24-hour days because I was on a deadline, I took the LSAT, kind of on a whim and did well. Friends of mine who were lawyers tried talking me out of it, but I applied to law schools, more or less on a dare. Then I got in. I still wasn't sure I was going back to school until the last minute. But I loved law school. For me, it was eye-opening. I only wished I had done it 10 years earlier.

Will you be returning to the states after your year in London? Do you plan to continue to practice law full-time, or do intend to use your degree to pursue other VC opportunities? Or both?

Meninsky: I actually enjoy practicing law. I caught the litigation bug in law school-I know this sounds sick, but, to some degree constructing a legal argument based on a set of facts is a lot like designing a video game-it's all about finding the story behind the story. Maybe I just read a lot of detective stories as a kid. I get to be both logical and creative, and work with people to solve their problems. Before I came to London, I was representing financial institutions in various matters. The financial crisis exposed a huge amount of fraud by individuals that had been going on for years and this presented a whole new set of issues that I wanted to tackle which is why I'm here now.

After law school I had a (too brief) fellowship in Munich at the Max Planck Institute where I worked on legal protection for software rights. It made me wish I had taken a year abroad in college. So this is it. I came over here hoping to get a job in London or Europe when I got done, but given the economic climate, I will go where the jobs are.

Jay Smith: An Engineer's Engineer

Transcription and information additions by VectrexMad!

Jay Smith was in attendance at the Classic Gaming Expo (CGE 2010) event some two years ago. This regular event celebrates the history of video, arcade and computer games and it is not uncommon to catch the early innovators and industrial legends there. Scott Schreiber and Mike Kennedy of RetroGamingRoundup.com were fortuitous to catch up with Jay and interview him for their March 2011 podcast edition. Retrocade Magazine has been granted permission to print excerpts of the interview and therby document electronic video gaming history "straight from the horses mouth".

Firstly for those who don't know, Jay Smith is an engineer with a talent for inventing electronic games and gadgets. Through his companies and delegation of his staff, he has helped orchestrate a legacy of gaming machines dating from the late 70s to early 80s, some which still have a cult following to this day. Be it the Microvision (a hand-held LCD computer game released 8 years ahead of the Nintendo Game Boy), the game watches (which were the first LCD based watches with electronic games) or the Vectrex game console (with its unique built in vector monitor which enabled true renditions of the vector arcade games of the day). All these developments were remarkable and pushed the state of the art for their time. Jay Smith is most associated with the Vectrex and is often colloquially referred to as the "Father of the Vectrex." However, in Retrocade Magazine's serialisation of the interview we concentrate on hand held gaming in this issue and the Vectrex in the next. Specifically in this issue we talk about the development of the Microvision.

So without further adieu lets get on with the interview:

The Microvision was the first portable, swappable game system way ahead of the Ninetendo Game Boy. How did it come about?

Smith: The genesis of the Microvision was an LCD display. That actually came about because a small part of our business at the time was creating the LCD chemicals that went into a display. As displays moved from LED to LCD, believe it or not back then, one of the major display manufacturers was Hughes Aircraft. Hughes made LEDs and that quickly became a lower cost commercial property and then moved into LCDs.

A fellow I knew joined me and created the chemicals that we sold to Hughes Aircraft to make LCDs. They were very interesting formations and, depending on the makeup of the LCD chemicals, their speed determined how many lines you could have in the display. So, at the time we got into this, the technolgy was three rows. There could be a number of pixels/dots in every row, and a number of dots could be made to make any number - but in general three rows was about it.

What we realised was that everybody was making graphics type displays where every pixel was counted every minute. In a display for a game like the Microvision game Block Buster maybe only 20% of the pixels were ever used at any one time:- why would you worry about rows that are not working? So we developed, unknown at the time, a system which governed only the rows that were addressed and specifically address the rows that were on. So, in the Block Buster game there are the three rows of blocks which were on all the time and they require relatively little attention. Once you get them on then you just need a little attention to keep them on. The ball needed the most attention, and the paddle was sort of in-between. That enabled us to make a 16 row display which was completely unheard of at the time. I mean, the industry was saying "wait a minute, a toy inventor is making a 16 row LCD display!"

If the current technology then was 3 rows and then you go to 16 rows I take it there was no off-the-shelf driver chip for that. How did you conquer that?

From left to right: RetroGamingRoundup's Mike Kennedy and Scott Schreiber talking to Jay Smith at CGE2010. Photo courtesy of RetroGamingRoundup.

Smith: We had to drive it through a custom chip. We had to specify the display and of course nothing existed like that before. We specified 16 rows comprising two bytes and this was really the genesis of the Microvision. If we could make a display do that and make that display a game, we thought "what could we then do with it?" So, we then developed the display. Then we thought "well if we were going to do that, make it cartridge programmable" so you can put on an unending number of games.

And one of the interesting things that happened, I guess everybody knows by now, is that the chip technology was not to the point that you could have a microporcessor and add ROMS to it in a cartridge as is done today. It turned out to be cheaper to use a very inexpensive microprocessor in each cartridge. Every cartridge has the microprocessor. And then the other little unknown or not well known thing is that Milton Bradley, bless their hearts for taking it up and getting interested in it, thought the Microvision had to be physically bigger in order to command a higher price than they would like. So, the Microvision is at least twice the size as it could have been just to create something of perceived value. It could have been the size of a Game Boy which was eight years later. We followed up with a 32 x 32 display and Milton Bradely said "no we've done our thing - its been very popular for a while but who wants to carry on with something like that."

Did you pitch the different Microvision versions to Milton Bradely?

Smith: We initially pitched it, they bought it and made it. We pitched the 32 x 32 display and then we pitched a colour display at a time when they didn't have colour LCDs.

You guys had one first after another. One thing that didn't appear even in the first edition Game Boy was a back light. A back light really made portable gaming so much more functional. Was a back light ever a consideration or was it simply not thought of in the industry at the time?

Smith: Two answers: initially no. The displays were all reflective because that was sort of the technology at the time: a reflector on the back of the LCD, We looked at it, and went that way with the 16 x 16, and the 32 x 32, but what happened with the colour display is that you had to put light through it. You couldn't reflect light through it.

The technology used was called quarter wave plates. Now this something I don't remember all the details of but in the LCD if you turned it partially on you can get one colour, if you turn it all the way on you can get another colour, and you can get sort of variations in-between. But in order to do that, you can't have the light coming in and then coming back out, so we had to have a back light. The little flourescent back lights and other things we have now weren't there, so we had a couple of different ways including a mirror that dropped out of the back to catch the light. We showed Milton Bradley the 32 x 32 and the colour display and they said "wonderful product but we are moving on."

What were the price points for the colour technology? Were they manically more expensive or marginally expensive?

Smith: Just marginally more expensive. It was essentially a black and white display but instead of the polarisers on the front it had quarter wave plates.

If the Microvision had been continued what would have been your development path had you been allowed to continue it?

Smith: We would have gone right away to the 32 x 32 and more resolution. We would have gone to a wider range of games. They had a range of games but they were reminiscent of the Milton Bradley board games. They were moving in the direction but they weren't really what we now know as classic electronic games. We would have moved in that direction and would have kept that up until we had a colour display.

I think had they [Milton Bradley] been interested it would have wound up with some kind of a back light in there. And the interesting tag line to all of that is that years later Sinclair, in England, produced a CRT based handheld TV. The CRT had a screen but the neck came off at an angle and so we ended up looking and building one of those which actually worked. Believe it or not, in a transisition to Vectrex what we took was the Vectrex output and put it on the tube for the Sinclair handheld TV. That was really amazing but that never made it either.

Take the Microvision game Star Trek: Phaser Strike. This cartridge was typical of Microvision games: it included an overlay for new keys, all the processing hardware included and slotted on the Microvision. Had you expanded to larger screens with colour and resolution, what was the plan to evolve this interface? Would this interface have been suitable for those newer versions of Microvision had they come about?

Smith: By then we had figured some ways to use a common microprocessor and a ROM cartridge. And we would include a built-in keyboard that was good enough for all the games. One of the things we were pleased about here and since we had so much space in the cartridge, is while there is a keyboard there, the keys that each cartridge use is different and labelled differently. So we would have used a much smaller cartridge that plugged in, and almost certainly didn't have the overlay that [Phaser Stike] did, and a sort of common keyboard. The whole thing would have been just more Game Boy-like.

You would have evolved into the Game Boy long before the Game Boy existed. What microprocessor were you using?

Smith: I hate to say here without research but I think it was an Intel processor or something like that.

It just a shame that when like I said you are an engineer's engineer, you could have created all these things if the company just let you do it. The great thing about that is that the Nitendo Game Boy, when it came out, didn't use a powerful chip. Had you been evolving in processing power, you could have had better than Game Boy performance years ahead of it.

Smith: I look back on that that and we spent a ton of money trying to move them up to the next level and the next level.

The full audio for this interview can be found at the RetroGamingRoundUp website. In the next issue of Retrocade magazine we get a fascinating insight from Jay Smith concerning the history of the Vectrex arcade game console.

MARK ALPIGER

He's the man behind Classic Arcade Gaming (dot com), stars in the movie The King of Kong, wears a weightlifting glove to play trackball games and he hasn't eaten a green vegetable in over 35 years.

by Rob Maerz

First off, if you would, explain why you haven't eaten a green vegetable in 35 years?

Alpiger: I'm what they call a "supertaster" where I have extra or more sensitive taste buds. Any time that I would eat green vegetables as a youth, not only did I really hate the taste but it was nauseating. The taste comes across as repulsive to me so while vitamins are not the perfect substitute they have served me well for the last 35 years.

So, you are taking supplements to offset not having green vegetables in your diet?

Alpiger: I think it's important to note that I do not advocate this type of diet – I do it because the food is nauseating. I do not get the recommended daily allowance of vegetables but I do supplement with a V8 that contains 2 servings of fruits and vegetables in an 8 oz glass. While I'm only getting 5 or 6 servings a week instead of per day it's better than zip.

You started arcade gaming relatively late in life compared to most, is that right?

Alpiger: I was 20 years old in 1983 so I started later than some. I saw Pac-Man in 1980 and I was like "this is what the popularity is about - it's the same screen over and over again." When I saw Pac-Man I didn't pay a lot of attention - until I saw Q*bert. I saw it at the Malibu Gran Prix in Columbus, OH, gave Q*bert a go and very quickly I became addicted. I always like games that had characters that had an appealing look to them like Q*bert or the Bear in Crystal Castles. It's kind of silly or goofy but it draws you in.

So what was appealing about Q*bert?

Alpiger: Well, again part of it is the cutesy characters in the game and the enemies are clever. They're interesting and challenging characters. It's easy to understand and difficult to master and a lot of the games I play follow that mantra. I don't want some console game that is multi-dimensional or multi-universe - that's just multi-horse**** to me. I just want simplicity. Easy to understand and difficult to master is the way to go for me.

You organize several Classic Arcade Gaming (dot com) tournaments per year – tell me about the first tournament that you participated in as a gamer.

Alpiger: My first tournament was actually the North American Video Game Challenge in January, 1985. I had been in communication with Steve Harris in the fall of 1984 who was Walter's (Day) second hand man (Alpiger reminds me that I should know Harris as a Popeye arcade world record holder and then recites Popeye score data). I was talking to Steve Harris about Crystal Castles and based on my mastery of that one game they declared me one of the top 50 players in America. It wasn't true but in any case they invited me out to Los Angeles for a contest which was my first and it consisted of four games: Mad Crasher, Karate Champ, Cheyenne and Return of the Jedi (Alpiger reminds me that Return of the Jedi just recently had a world record set on it by Hector Rodriguez).

After that, I got a postcard about the Video Game Masters Tournament in Bloomington, IL and I didn't have to travel nearly as far.

With the Internet, it's certainly a lot easier to promote arcade gaming tournaments. Is there a correlation in the amount of gaming activity you see now compared to the postcard communication days of the 1980s?

Alpiger: Communication about tournaments back then was limited to the hardcore gamers. A lot of people were not going to travel great distances like a number of the tournaments required back then.

Today most everybody has a computer. And if they have a computer they also have Internet so, there's no additional cost. Whereas back in the day one would have had to subscribe to Electronic Games Magazine, go to the newsstand or travel great distances to get the information.

Only the hardest of core and serious gamers are going to spend the money to find out about this stuff. And ironically it's reverted back to the hardcore gamers today but the reasons are different because the number of the people participating in the hobby has dropped down to just the serious gamers. Ironically it's come full circle – hardcore then, hardcore now but for different reasons.

Only hardcore serious gamers were communicating back then - at least via telephone and we did letters, too. I still have all that stuff and I'm going to scan and put it up on the web site at some point.

That was a great question.

Would you have thought back in 1983, when you first started playing Q*bert, that in 2011 the classic gaming scene would still be alive and even you yourself would still be gaming?

Alpiger: Partially because the crash had already happened and we had seen some arcades close, I would have anticipated that there was going to be *less* of a presence of arcades. You'd always have arcades in theme parks but even that's become less true. Naturally, home consoles like the NES kind of spelled the death knell to a degree because why go out if you can play it at home?

I would not have predicted that I would have been considered a person that provided something of benefit to the players in this niche hobby such as the tournaments in the various locations and the forums that serve as an outlet for all the gamers. I would not have anticipated that at all.

What historical gaming artifacts can we look forward to seeing on your web site?

Alpiger: I have OCR scans of the Guinness Book listings from the Masters Tournaments from the 1980s. I had the foresight to go into the arcade that held these tournaments, which was Bally's Aladdin's Castle and it was exclusively held there in 1986 and '87, and I asked if they had the results. And they did so the guy xeroxed a copy for me. I have postcards sent to me for tournaments that I was invited to and I'm going to scan items like that in.

What was associated with these tournaments? Well, I'm going to show you the postcard, the flyer that Bally's Aladdin's Castle had for their '86 tournament, the original entry forms that you had to sign to get into the contest - I have extras of all of those. People laughed at me: "oh, you idiot why are you squirreling away all this stuff?" and I thought almost the same thing for a while but I thought I could show one or two people at a time. But, that was before the mid '90s when "Mr. Internet" came around.

With all this stuff I look like a genius for keeping it because now I can share it with planet Earth – the Internet has changed everything.

So you will have all these items available on your site in the future?

Alpiger: Exactly. On the contests page, you'll see the Video Games Masters Tournament from 1985 – what's associated with it? I have all the score results and my personal stories from it. As a matter of fact,

you have a nice write-up of the 2010 CAGDC Tournament which I'm going to take and put up on the CAGDC 2010 Tournament page. So, anything I have that is associated with it is going to go up.

I have a poster from the January 1985 tournament from Los Angeles that I'm going to take photos of and put that up.

I also have a few photos from these tournaments. The January 1985 tournament I took my camera and I have photos of that. Gary Hatt, who also participated, gave me black and white Polaroid photos to scan and those are ready to go.

Most of the stuff is already done I just have to take the time to publish it.

Is it safe to say that you're most popularly known as "the Crystal Castles guy?"

Alpiger: I guess that's an accurate statement. I'm known for it from The King of Kong and I think everybody knows that it's my favorite game. I've put up some pretty good scores and I love that game.

On Starcade, which I watched regularly in the early to mid 1980s, I saw the game Crystal Castles. Again a game with a cute character with interesting enemies, really good game play and the different screens got my attention. In Q*bert and Pac-Man, the screens didn't vary much which is a little boring. So, I said I'm going to play this sucker the first time I see it.
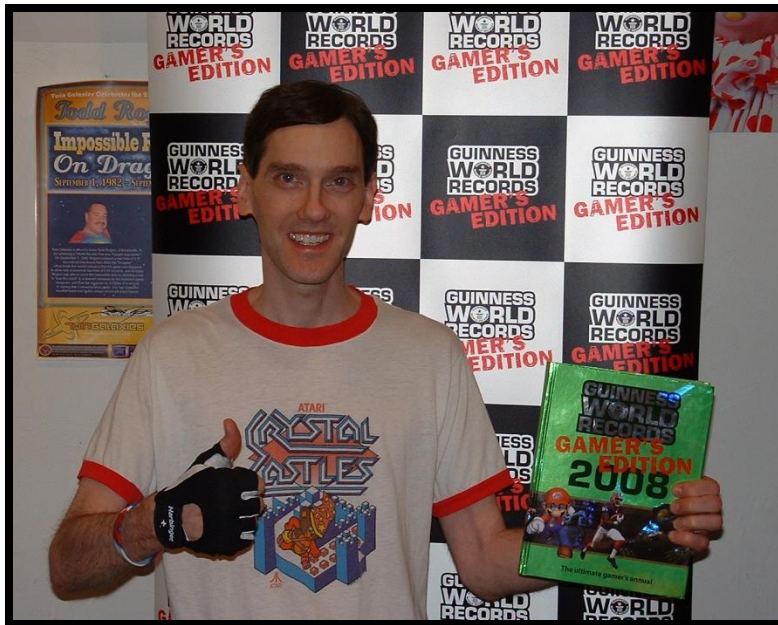
I saw it on a Starcade broadcast around October of '83 and on January 8, 1984 I went to an Aladdin's Castle at the local mall and there she was. And I said "I'm there, babe" - hooked from the instant I played it. I kept playing it and slowly improved for over a year. That's what keeps your interest in a game: when you keep on improving.

Although I kept up with Crystal Castles, after that was Marble Madness. I asked the guy at my local arcade if he could get Marble Madness which he did and it did really well for him. So, I was happy to see that game there but, unlike Crystal Castles, in Marble Madness you roll the trackball rapidly in one direction and you can get your hand pinched. In Crystal Castles, your hand kind of just floats on top of the ball and your palm doesn't usually go onto the control panel. In Marble Madness you're doing one direction primarily so your hand's constantly hitting the control panel and what happens is where the ball meets the cutout in the control panel you can pinch your skin there depending on how you stop, roll and put your hand on the ball. I was getting pinches, bruises, calluses and I said "let's do something about this." I researched it and found a fingerless glove was perfect because a golf glove would have gotten too hot. It got me attention in the King of Kong movie which is kind of neat. While you think I'm the Crystal Castles guy I think the glove is really my trademark.

So what's the story behind playing Crystal Castles with your foot?

Alpiger: Yeah, the old foot game I'm known for – basically, a local gaming budd, Frank and I got bored playing Crystal Castles. I had bought the machine for myself from a local Aladdin's Castle and it was the exact same one that I had played my very first game on.

So, I owned the game and Frank would come over regularly because why should he go to an arcade and give them quarters when he can come over? I'd let him play for an hour, he'd give me a dozen tokens and save $5

because you know that game's a token eater. We had put it up to such a high level that you kill the game off if you make a couple of mistakes on the first few screens.

We played so much we got bored to where we would have betting games: "I challenge you to run through the game without using the jump button" or "go through the game but don't get the hat – as soon as you get the hat your game's over". So, we did betting games for tokens.

One thing I thought up one day was to use my foot. He wasn't up for doing it but I thought I'd give it a go and I got up to level 9 which is actually amazing since I haven't equaled that today. So, that's the genesis of that.

Let's talk about King of Kong: is it true that you received no royalties from the film?

Alpiger: 100% true and to my knowledge no one else did. While there are rumors to the contrary, they're not true. Everyone has categorically denied it including Steve Wiebe and I hear from reliable sources like Billy Mitchell and Walter Day.

No one has been compensated according to all sources and from the mouth. I heard from Steve from the mouth, Walter from the mouth and I heard through Richie (Knucklez) about Billy not being compensated.

And you weren't even given a DVD?

Alpiger: Didn't even get a copy of the DVD. Even if I didn't ask, I think one of those two guys (director Seth Gordon and producer Ed Cunningham) should have sent it out to all of us because we were a part of making the film.

How accurate is the film?

Alpiger: I think it's extremely accurate. So, don't believe these people who are more out to dissuade negative public opinion. Not saying that they're lying because in a way we're both right. The thing is yes, there are some inaccuracies but they are relatively small inaccuracies. For example, I

don't think they ever say that Billy is a referee but the film implies it. But again, that's such minutiae. I mean if you watch the movie once you would not have picked up that allegedly Billy was a referee – a lot of the stuff they're quoting is minutiae. Go after the big stuff: what about putting up the score without proper certification? Stuff like that.

With the film crew at Funspot in 2005, was there an air of excitement surrounding the production of a movie about the classic gaming community?

Alpiger: It's interesting you say that but I'm not one of those that get revved up pretty easily. I knew they were interviewing me and I was hopeful that I'd be in the movie, just to be honest, for my own greedy purposes. But, I had some interesting stuff to say.

What I thought was going to happen was they were going to cover a number of personalities -kind of what Chasing Ghosts apparently turned out to be and I was happy about it. To tell you the truth because I think our hobby needs the publicity and they ended up giving it to us.

Rob's (Mruczek) going crazy: "they lied to us." Well, here's the deal: projects change. I don't know if they knew from the beginning and if they did "lie" – it's irrelevant. They covered a story and they brought attention to the hobby.

It wasn't excitement it was more like "ok we got two film crews here, they're interviewing us and will this go anywhere?" I don't think there was a lot of buzz or excitement per se because we weren't sure if

anything would become of it. But, if something *were* to become of it, I think we were all happy and hopeful that attention would come to our hobby and more people would be able to get into it.

Were you happy when you saw the final product?

Alpiger: I thought it was well done: the music, the professional quality footage and it was well put together. Very professional and very well done – that was unexpected. Although, I was really surprised that it was focused on that one story. But, I didn't really care because I knew it wasn't going to focus on me.

For others, Rob and Walter went ape ****. Billy "hasn't seen it" but from what he's heard he's disappointed in that the editing made things appear inaccurate. But, notice that these people are from the Twin Galaxies side.

On the other end of things, I've heard relatively few complaints other than, of course, Brian Kuh who is a backer of Billy and Twin Galaxies so that's understandable. The Twin Galaxies advocates are disappointed because I think they

didn't get what was promised or what was said. I think everybody else is taking it as it is and they're happy to see themselves in the movie and happy to see some attention to the hobby.

Was Brian Kuh exploited?

Alpiger: According to him: for sure. I'm pretty good friends with Brian and even for me he will not sign anything related to the King of Kong because it would be a coup (pardon the pun) to have his signature on posters. I'm not mad at him in the least - that's his stand and I respect him. He doesn't want to act like he supports the film. He's very unhappy with the film and feels that it's inaccurate.

You attended the Big Bang in 2010. What vibe did you get from that event?

Alpiger: It wasn't the organizer's fault, but it was kind of like a disconnected situation. There was a lot going on like you could go to the console gamer area, check out the exhibit setup or check out the outdoor events like the Pac-Man Park dedication and some concerts. So, there were simultaneous things going on which made it disconnected if that makes sense.

I say there was a level of excitement because I saw people there that I hadn't seen in a while. That was only the second time I saw Billy Mitchell in 25 years because he doesn't come to a lot of the events. For me personally, I saw a lot of neat people and there were a lot of interesting events going on so overall there was a level of excitement.

Even though some of the people that received awards were controversial as far as if they were deserving, the Hall of Fame awards that were passed out and that ceremony was pretty cool.

Overall there was an air of excitement and buzz because people could walk up to the celebrities but you would be amazed at the number of people who say they are reluctant.

I don't get bugged or bothered by many people and let's be honest: at a lot of these events I'm the biggest star from The King of Kong. At the Big Bang there was Steve Sanders, Walter, Billy, and Steve Wiebe so they were all bigger than me. But, at a lot of the other events I'm the biggest celebrity there and that's not to brag that's just too say that I'm surprised that relatively few people come up to me. Some of them have told me after I asked why they didn't have me sign something for them since they like the movie and they'd say "I didn't want to bother you" and I said "no, come on up a lot of us guys like to chat about it." I'm surprised by the amount of respect given by the fans.

Video gaming is so vast: from PC gaming to arcade gaming to Xbox to handhelds to classic consoles – is the International Video Game Hall of Fame spreading itself thin?

Alpiger: I think if you try to please too many people that you please almost nobody and I'm a big advocate of that. You got to have the niche range and market to please the most people. Unless

your Funspot and have the room to put everything in there: they have all genres, all years, real old games, real new games, kids games and more games for the older generation. I think overall, in essence Funspot is a museum and that's the closest to what we have in a video game museum. Funspot is great to see for anybody who's on the east coast and on the west coast California Extreme has so many rarities. And of course there's the Classic Arcade Gaming (dot com) tournaments.

Tell me about the CAGDC tournaments – the ones I have attended have run smoothly but have there been any disaster stories or bumps along the way?

Alpiger: The first tournament had just 4 games and 22 players. And again, they picked the games and 3 out of the 4 gave me a headache – literally I had a headache the last day because it was just frustration. Karate Champ is a pain because you can only go so far if you don't use certain techniques. A limited number of games are never a good thing and more choices are never a bad thing.

Otherwise, we've done great. We've never had to take a game out of an event because they've all functioned properly. All the settings have been right except for one in the course of over 100 games in the tournaments. I think one was set wrong and it wasn't even my fault - the manual did not correspond to this particular board and I only had one manual available.

The best story out of all my tournaments was at my 2010 tournament where we had two standout referees in Pat Laffaye and Graham Ogilvie - they did just an absolute bang up job and they were just terrific. They were professional, accurate and made my job so straight forward and easy and the players were also happy.

Another good story is from our mini tourney in October 2008 at Jason Spindler's house. He had a number of rare games including Turbo Sub. It was the only working one on the planet and a lot of players absolutely loved it. Beastie Feastie with original control panel: I can pretty much bet you my life that was the only working one on the Earth at the time. We had two games that were the only working ones on the Earth.

Nova 2001 I've never seen anywhere else until last year's (2010) Funspot tournament and he had that one also. People tell me Arabian is fairly rare and not even Funspot has that one. So, he had so many rare titles and that's a real standout situation. It was an intimate group of twelve entrants and that made for a fun time.

RetroGaming Roundup.com

Scott Schreiber   Mike James (UK Mike)   Mike Kennedy (SoCal Mike)

INTERVIEW WITH TED DABNEY

Ted Dabney   Nolan Bushnell   Fred (VP of Finance)   Al Alcorn

What follows is the transcription of Retrogaming Roundup's interview with Ted Dabney in October 2010. The transcription has been edited for readability.

To listen to the podcast in its entirety, visit Retrogaming Roundup's web site and click the Podcasts link on the navigation bar.

Scott: Well Listeners, it's our pleasure to welcome to the Retrogaming Roundup Show one of the founding fathers of Atari and of the coin-op video game industry itself, Mr. Ted Dabney.

Ted Dabney was working at an engineering firm with some of the other folks that would later become some of the luminaries of classic gaming as well and that engineering firm was AMPEX. A lot of people today aren't that familiar with AMPEX because it sort of faded from prominence in the late 70's and early 80's but AMPEX was one of the biggest engineering firms of its day.

It started during World War II and they were making motors for the radars that flew on the F4 Corsair and I believe they also made dynamotors, which is a motor coupled to a generator to create a higher voltage by driving the other motor directly. Now, AMPEX was heavily involved with the space program. AMPEX went on to create some of the first video recorders.

In fact, Ted you might be interested in this, when the first moon landing occurred, the video was streamed down from the lunar lander to a tracking station in Australia. Then it was converted over to another low resolution format from the AMPEX equipment and it was beamed over for broadcast in the States and that's what we all saw on TV. Well that image was a very low resolution, the hues, the shading was wrong, and a lot of people think that was the quality of video that came down from the AMPEX equipment. Well the real video quality that came down from the Moon was actually very, very good and what happened is that video sat at the tracking station, it got filed in NASA's files and lost since the Moon landing. So that video disappeared. More recently that video was found, those tapes were found, and they didn't have any

AMPEX equipment to transfer it into a digital format. So they restored two AMPEX video recorders from that era which they're actually using to transfer that video into a modern digital format which we'll all be able to see fairly soon.

So AMPEX was hugely pivotal and Ted worked with AMPEX so, Ted, since all this sort of came … all you guys that sort of created Syzygy and Atari sort of came out of AMPEX, if you could tell us a little bit about your work there and, if you'd like to, you could back up earlier and talk about maybe any childhood passions that lead you to engineering, your education, whatever you want to sort of tell us of how you came to AMPEX.

Ted: I got in to mathematics by a neighbor. He worked out at Hunter's Point and they were having a course in analytic geometry that he said I ought to take. So I took it, I liked it and I learned a lot from it, and kind of started the whole idea of me and mathematics. So that was kind of where it started. Then I wound up in the Marine Corps to take electronic courses and, you know, like that, so I got a job at AMPEX. I worked in AMPEX Military Products Group and my job was designing mainly video circuits using vacuum tubes. And I did that for about six years and then transferred over to Video File in Sunnyvale, still with AMPEX.

Scott: Now Video File was a really cool thing. Would you mind explaining to our listeners a little bit about Video File?

Ted: Well, yeah, as best I can. I was an engineer - I wasn't really a part of the systems people but Video File was a way of recording documents and video on a very large rhodium disc which was kind of like the disc you have in your computer now only it was huge and so you could have instant access to video and pictures, if you wanted mug shots, X-rays, and finger prints and all that kind of stuff.

Scott: Speaking of which, Scotland Yard is still using that system today.

Ted: Good grief! There's got to be a lot better systems out now with the memory. Now, RCMP was one of our clients, L.A. County Sheriff and several hospitals - that kind of thing.

One thing that I worked on was electron beam scanning. When DoD finally had this U2 airplane flying around at 70,000 feet they had 70mm film that they needed to transfer from one point to another and we developed a way of coding the film with a scintillator and then aluminizing it so the charge would go off and then we'd scan it with an electron beam and send it off to another, you know. So now it's an electronic signal, very high quality electronic signal, 5 micron resolution, and that was what I was working on before I came to Video File. So that was kind of fun.

Scott: Okay so that was some of the projects that you worked on there at AMPEX, how did you first meet and sort of fall in with the people that would later become your partners in forming the video coin-op industry? How did you meet Nolan and Al and those guys?

Ted: Nolan and I shared an office. We were very close.

SoCal Mike: What was Nolan's position at AMPEX because he wasn't in engineering?

Ted: No, he says he was but he wasn't. I don't know what he did but he "studied things."

SoCal Mike: He was one of the office guys.

Ted: No, he was supposed to be an engineer. I mean, he was hired in as an engineer but I don't think he was capable of doing engineering work. He didn't have the background; he didn't have any training in it. You know, he had a degree; he finished the last in his class. But a degree doesn't do

much of anything, you know, unless you have some experience.

Scott: He did produce a very effective smoke screen that is starting to blow away, dare I say? Now, I don't want to be too harsh on Nolan because…

Ted: Well yeah, but the thing is he brings it on himself.

You know because he tells all these lies. You know the lies that he has told that I'm just now finding out they were lies. Because all of a sudden the interest that people have had in me, a lot of information has come out that are things that he just lied about.

Scott: That's so. For us, it's a very different perspective. You were a colleague; you were one of the founding engineers of this industry. Now, for us, we were kids, okay? We were the dopey kids sitting in front of the TV playing the Atari 2600. So to us, all we ever knew was The Legend of Nolan.

Ted: I know, he made sure of that. That was his whole thing. In fact, one of the first things he did at Atari is he hired a PR person to promote *him*. Not promote the company. He made sure my name never got mentioned. In fact, nobody's name got mentioned but his. You know? That's what he did. You know, that was the way he worked.

Scott: But you know, I told you when I acquired a Computer Space and I was restoring it, when I got this Computer Space I understood The Legend of Nolan was Nolan invented Computer Space, the first coin-op video game ever, in his daughter's bedroom and that's that.

Ted: (laughs) Have you heard the latest lie on that one?

Scott: Oh, fill us in but I think we're probably on the same page.

Ted: Yeah, there's a thing called AtariAge, I'm sure you guys are aware of that. Anyway, somebody

was asking Nolan about some of those same sort of things and what he said, right there on the blog (forum) was "Oh, it couldn't have been Dabney's bedroom; Dabney didn't even have a daughter."

Scott: So how's your daughter doing today, Ted?

Ted: Oh, she's doing fine. You know what's really funny about that, my daughter and her friend spent a lot of time at Nolan's house. In fact, Nolan took my daughter with him to babysit when he made a trip to Georgia. I mean, he knew my daughter real well and here he is, saying I don't have a daughter. So anyway, I got on there and put in my bit about that. I get this phone call from Nolan and he says "somebody is on the Internet using your name."

SoCal Mike: Hey Ted, that was a crazy thread. I don't know if you read all of that but, I mean, yeah, Nolan came on and nobody believed that it was him and then you appeared and then I think Curt (Vendel) basically told everybody that it was. In fact, you then vouched that it was really Nolan so it was just a bizarre blog or thread on there.

Ted: Yeah, I don't know if the early ones were Nolan because you can't tell because he lies so much, you had no truth that you can base anything on.

SoCal Mike: I'm a little confused about the history of Computer Space. I mean, it was originally brought out by Nutting Associates, right?

Ted: Well, yeah, they brought it out but it was our game.

SoCal Mike: But it was your game?

Ted: Nolan had worked his way through college at the carnival kind of thing, so he knew games and he, you know, he was really into that kind of stuff. Anyway, while he was working at AMPEX, he heard about this game on a computer

over at Stanford that he wanted me to take a look at, go with him to see it. It was called Spacewars or something. It was a neat game but it was on this big computer, you know million megabyte kind of thing and he said, "Hey, we should be able to do that with a smaller computer and time share, you know, these TVs."
Well, so that was our whole idea so we got a hold of Larry Bryan, who was a computer programmer, and we formed the company Syzygy.

Scott: Now, let me ask you one question about that. The Legend of Nolan - for now we'll call it The Book of Nolan. The Book of Nolan sayeth that Syzygy was created by Nolan Bushnell. I've heard that…

Ted: No, absolutely not.

Larry Bryan, Nolan and I were sitting around my living room one day trying to think of what we wanted to do. We had decided to come up with a partnership. The partnership included the three of us, and we each were to put in one hundred dollars to kind of get this thing started. We knew that wouldn't be enough, but at least it was a place to start.

And while we're trying to think of a name we couldn't use "D. & B." because that was Dunn & Bradstreet, we couldn't use "B. & D." because that was Black & Decker. So Larry Bryan said, "Hey I saw this really neat word in the dictionary and it was Syzygy." So we looked it up and, sure enough, there it was: Syzygy, alignment of planets and that kind of thing. So that's what we called the company and so that was it. So I started a bank account and put in my hundred dollars, Nolan put in his hundred dollars, Larry never put in his hundred dollars.

In the meantime, we concluded that there was no way we could make it cost-effective on the price of the PDP-12 or whatever the Hell the computer - you know, this was forty years ago so…

Scott: Yeah, PDP-11.

Ted: Yeah PDP-11. It was one of them - you know, early computers. There was no way we could time share it. The computer wasn't fast enough - it just couldn't happen. Larry Bryan never wrote any code at all to even show us how to start this thing. So the idea kind of died.

In the meantime, Nolan had this great idea about a pizza parlor that had talking barrels and singing bears and all that kind of stuff so we started running around looking at those kinds of pizza parlors and eating places. So, one day we were sitting there, and Nolan said, "You know, on a TV set when you adjust the vertical control, the picture starts moving back and forth, you know. How does that happen?"

So I explained it in detail how that happened. He said, "Could we do something like that?"

I said, "Yeah we could do that, we'd have to do it digitally though. We couldn't do it analog, we wouldn't have any control."

He said, "How do we do that?" So I went through the counters, you know, the little different counter bits on the video counter versus the synch counter. The synch counter would always have to run the same but the video counter can run a little bit faster and a bit slower.

I said, "I don't know how that's going to come out. We could go one bit and have the thing going too fast. I don't know yet."

So I bread boarded it and that was when I was working in my daughter's bedroom. I bread boarded it and sure enough it worked! The spot was moving, my neighbors are coming over looking at this little spot moving on the screen. "Oh wow! That's really good, Dabney!" So, that worked. So, Nolan and I started talking and I said you could do exactly the same thing for the horizontal as you can for the vertical.

I said, the only reason you can't the horizontal hold for the TV set is because you'll screw up the high voltage. You know, because the high voltage runs off the horizontal frequency counter. So anyway, that's what started it. We started looking at what we could do and Nolan really, really worked on it. He really worked on how we would do this sort of thing. So I helped him with all the circuit design, we built up a breadboard and at some point, and I don't know where it was, he decided to contact Nutting Associates, mainly because there's no way we could have done anything with it, no matter how good it was. So, he went and talked to Nutting and, I guess, he worked out some kind of deal.

SoCal Mike: So they were going to manufacture it?

Ted: Yeah, yeah - Nutting had a game called Computer Quiz that they had been milking for years and years and years. They had a hot rod salesman that was doing a hell of a job just keeping the company going with that game. So anyway, Bill Nutting was really kind of desperate for something so I think that's why he got the deal with Nolan.

But we owned the game. That was the whole deal. We owned the game. They were going to manufacture it and they were going to pay us a royalty. And they're going to pay us a salary while we're building this thing up. You know, developing it.

Scott: Well, and on the Computer Space control panel it says right there "Engineered by Syzygy."

Ted: Syzygy engineered, yeah. I put that on there.

SoCal Mike: Do you remember what type of royalties or financial situation was worked out with you guys originally when it first kicked off?

Ted: No I really don't know. I've seen something in print somewhere but I don't remember, I

was not part of that. Nolan did all the business stuff, I did the engineering.

Scott: Now, do you know whatever because of those prototype breadboards and all, because that would be a huge piece of video game history.

Ted: The Computer Space one was done in Nutting's lab and I'm sure that that became part of his stuff. Al Alcorn had the one for Pong. But that was developed by us after the Nutting thing. Al Alcorn had the original one, and then I had the second one that got built up from that one of my neighbors stole.

Scott: Well, that was nice of him.

Ted: Well yeah, well whatever I didn't care. It doesn't matter to me.

Scott: Now, Ted, you've modestly described your contribution to Computer Space as designing circuits. To sort of describe this for our listeners, Computer Space was designed before CPU, ROM, and RAM existed in a usable format.

Ted: Oh absolutely. Counters and gates. Counters and gates.

Scott: Absolutely. And there were processors out at the time, but they were, say for example, you had a board that had the ALU, the arithmetic logic unit, the MC…

Ted: No, no, no, we didn't have, no.

Scott: No, you didn't sir; you didn't, I was saying at the time, the state of the art. And that was quite expensive.

Ted: I don't know, I never came across anything like that. I never even looked for it, so maybe if you tell me that it existed in the early 70's I'll believe you, but I don't know that.

Scott: Yeah, I actually got to work on a unit. You were in the Marine Corps, I was in the Army and I worked on a unit called the

Position Azimuth Determining System. And what it was, it was an inertial navigation unit that had multi-board computers. So, instead of having a discrete microprocessor chip, it had an arithmetic logic unit, it had a memory controller device that controlled core real memory, you know, you're very early computer stuff.

Ted: We didn't even have any memory. I don't know where you got memory. You had different sources.

Scott: Well, there was core reel memory; core reel memory existed at the time. The Apollo program used it.

Ted: Wait you mean magnetic core?

Scott: Yes.

Ted: Oh, oh magnetic core, well yeah okay. Yes, we couldn't fit that into a game.

Scott: No. (laughs) I'm sure you remember Ted, that at the time, magnetic core memory, you'd get a seven inch block of that for a hundred thousand dollars, you know.

Ted: Yeah, yeah, no kidding. And then it would quit working!

Scott: Yeah, it did. Trust me, I know. But the thing about Computer Space that's so important is that the technologies of magnetic core memory, multi-integrated circuit to put together to create a central processing unit, all that was unavailable to Syzygy at the time they were building Computer Space.

Ted: We had counters, we had MSI's. You know, we had counters. That was the biggest thing: counters and gates.

Scott: Yeah and the way that I have to sort of describe Computer Space to our listeners is that Computer Space is a symphony of circuits. You mentioned the

counters. It's one of the basic projects that you do in digital circuits, when you're going to school, is you start learning how to do, say, a counter. Where you pulse five volt input once, you've got J/K flip-flops, and it starts counting 1, 2, 3, 4, 5, 6. So it's very easy to build a very simple counter that will say, keep track of a score. But then now you have to have another counter that tracks the vector of where say, the ship is pointed.

Ted: Well no, we didn't use vectoring at all. No, they were just counters and one counter - you know, we'd change the speed of the video counter. We either made it go a little bit faster which means the picture moved to the right, or it went a little bit slower which means the picture would move to the left. And the horizontal was, you know, the same thing only when it went slower it moved up and when it went faster it moved down. You put those two together and you could move it around the screen.

Scott: Right, when I say vector, I meant as in a direction. Those two combined to get a direction on the screen. So, as you were designing all these circuits that had to keep track of all the different game aspects, and they all had to work together, who was the mastermind that sort of brought all these … I mean, you could break Computer Space down to certain discrete circuits.

Ted: Well, yeah, coincidence of when the rocket hit the flying saucer. You know, you had a coincidence that occurred. Nolan actually did that. He worked out all the coincidence things for keeping the score and that kind of stuff.

I helped him with the circuitry and then he would say "well, how do I do this and how do I do that" and I would show him the basics and then he'd go and turn it into a circuit that actually worked.

Scott: So, who made the decision on the physical layout of the circuit

boards? Because the one player Computer Space, is broken down into three distinct circuit boards. Who made the decision on the formatting of that?

Ted: Nolan did.

Scott: Okay. Now, did Nutting have any input on that?
Ted: No, Nutting didn't have much input on anything because they had no clue about what we were doing.

Scott: (laughs) So you were just these odd fellows over in the corner with a bunch of ICs and they had no idea what you were doing?

Ted: Yeah they're just hoping it works because they were investing money into this thing. They were hoping to get a return on it but as far as what we did or how we did it, that was strictly up to us.

I spent most of my time building a cabinet because we needed to have a cabinet to display this thing in. Nolan worked at the bench and I worked in the shop and I was building the cabinet and he was building the electronics.

SoCal Mike: Was the original cabinet something different than the fiberglass contraption?

Ted: It was a wooden cabinet. It looked almost exactly like the Pong cabinet.

SoCal Mike: Like the Pong cabinet, okay. Whose idea was it to give the actual cabinet that went into production? Where did that idea come from in that shape and that design?

Ted: Absolutely Nolan's.

SoCal Mike: Because that looked like a pricey cabinet to build at the time - I mean, the molds and everything.

Ted: He found some guy that could do it pretty cheap.

Reinvestigating POLYBIUS

by Catherine DeSpira

To someone passing by the site of the former Malibu Grand Prix in Beaverton, Oregon, one would not think that the miniature racing track was once the birthplace of what has become one of the most persistent urban legends in arcade gaming history.

Driving up to the Malibu Grand Prix (now Malibu Raceway) on a cold and rainy November day, I pulled right up to the front door of the low slung, red and white rectangular building and realized I probably should have called first. *Closed.*

During the warmer months of the year the place is teeming with people, each parent's young son or daughter anxious to grip the fast feel of driving a miniature race car. But today the wind rises up hard from the Pacific, the rain cutting sideways, and I cannot imagine anyone wanting to face this weather for even the most remote of thrills. Peering through the glass door I see the arcade is still there, but the whir and flashing lights of the classic arcades have been replaced with soulless "redemption

games", the new money maker of a brand new era.

But The 80s feel is still there, bitter sweet, still palpable and touchingly reachable by those who can remember when Arcade was king. For a moment I stand there, hands cupped against the glass, peering in the door, a ripple of longing clasping hands with a memory. I remember walking in this very door back in the summer of 1983 and being swept up in the sudden excitement of lights blinking from ranks of new video games calling out electronic responses like a choir practice of robots. I remember the world awash with light, excitement so on the edge you could feel the pulse of it coming off of people's bodies. I had an instant first crush on a cute boy playing Donkey Kong and felt the earth shift on its axis when he asked me if I wanted to play with him. Some things time just can't wash away.

So it's still hard for me to believe that my investigative research told me this was the place where it all began, the place where two simple and not that unusual events occurred in 1981 only to be met with coincidental and unrelated ones that grew into legend. Harder still is that 30 years have passed since the events occurred, traveling through the decades to land in the present just as confusing as they ever were. The kids of that arcade are now, like me, middle-aged adults. Many of the small details of that time of 'who, what and where' have been forgotten, misplaced or are completely irretrievable.

But *something* did happen in the Fall of 1981, first at the

Malibu Grand Prix Raceway's arcade, and then at subsequent others. Had those kids been adults, regular consumers of local newspapers and the ten o'clock News, the legend of Polybius might not have been formed. But because the most impressionable eye witnesses were kids, unfamiliar with more sophisticated methods of communicating fact, the only avenue of resources they had was talking to other kids, which helped grow the initial story into something straight out of science fiction.

The Original Internet Legend Circa 1994

As with all Urban Legends, depending on how long they have gone on, once the groundwork is laid by the initial event, decade by decade more layers are added. Just like the amusing act of whispering something in one person's ear, then passing the message down to another and so forth and so forth; what comes out at the end is usually very different from how it started. Such is the story of Polybius, a multi decade exercise in how legends begin and how they are passed.

According to the earliest Internet form of the legend, found in the archives of *Usenet*, a new game appeared in several suburbs of Portland, Oregon, in November, 1981. The *Tempest-like* game, reportedly called *Polybius*, made by a covert German company, *Sinnesloschen*, was an instant hit and popular with some players to the point of addiction. Eye witnesses claim Polybius was in a plain black and unmarked cabinet
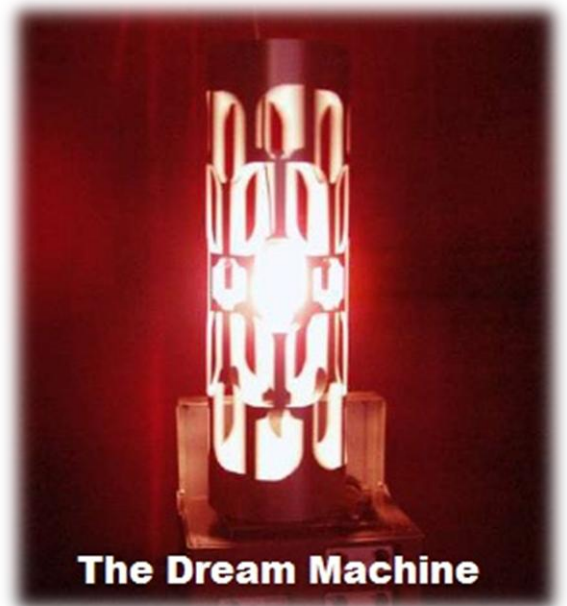
(***such as this unidentified player, on an unidentified game, is playing in a photo supposedly taken at an arcade, in Oregon, 1984***).

Players, and exclusively young adult males and teens, gathered around the game, forming lines, with brawls often breaking out over who got to play next. Many of the more obsessive players suffered various side effects from playing the game, most notably memory loss, nightmares, paranoia, insomnia and catatonia with flashing images of words and phrases in their minds. Some players quit the game completely, with one purportedly becoming an anti-video game activist in a crusade against them.

Apparently the game's program incorporated rapidly revolving kaleidoscopic puzzles, interconnected with numeric shapes and subliminal messages that deeply affected the consciousness of some players. We do not know. No roms have ever been recovered from the mysterious game. But one could generalize that the same theory

applied in the creation of *The Dream Machine*, by Ian Sommerville in 1961, a *stroboscope* believed to alter the brain's alpha waves and produce trance-like levels of relaxation when used for extended periods of time, could have been used in another game. But unlike the *Dream Machine*, Polybius' rotating lights and colors were thought to have been designed for a very different purpose, that being mind control. Legends tells us that players felt as if they were no longer in control of their thoughts after playing the game, that they were still being prompted to think negative thoughts, many of them feeling they were in danger of themselves. One suicide is rumored and, depending on which version of the legend one hears, murder as well, no doubt someone getting their facts confused with the unrelated 1983 mass murder in a Texas arcade.

The Dream Machine

Weeks after the alleged events in 1981, as the legend goes, *Men in Black*, the harbingers of Government activity, began to show up to collect some form of unknown data from the machines, allegedly testing responses to the supposedly psychotomimetic

game. It was reported that sometimes the men in black could be seen going to the cabinets, inspecting them, sometimes taking out unknown parts and quietly walking away. Often times they loaded them up in trucks and transported them elsewhere. One day, it is rumored, they took all the Polybius machines away and they were never seen again.

Quite a fantastical story. But many points are correct:

1) A "Tempest-like" game did appear in Portland in November 1981 as seen in bills of sale by five former early 80s arcade operators and confirmed by the one and only distributor in the area, Todd Levy, owner of Ability Games Distribution Company. That game *was* Tempest.

2) There are two documented 1981 events of arcade players experiencing negative effects from gaming while living in the Portland area but not one of them is a seizure. Nationally there are only 9 instances of seizure activity ever reported by responding physicians in the USA between 1981-1984 from playing video games, predominately on home consoles. Only one was from a cabinet-style arcade game: *Astro Fighter* (1980 Gremlin/Sega)

3) Government agents *did*, indeed, seize and/or load up videogames on two separate occasions in 1981 and 1982. They did take down the initials of high scorers on games as a way to determine the names of possible eye witnesses to on site crimes they were investigating.

4) Government agents *did* inspect the backs of certain games, looking for cords that led to "counters" and other illegal apparatus used in gambling and,

on occasion, removed "unknown parts" from games because of that reason.

5) There *was* a government test on an arcade and the habits of its players as ruled by the Supreme Court, in November of 1981. But it wasn't in The Pacific Northwest - it was at Aladdin's Castle in Mesquite, TX. Atari, fearful of financial losses, legally opposed a Texas ordinance trying to take root in other states that held that citizens under the age of 17 could not operate a coin-op game. (*Thank you, Atari*)

Gambling on pinball goes way back and is well documented. But it's also documented on video game card games, like, Draw 80 Poker and Blackjack, where a counter was attached to the game, and run to the back bar, to record winning hands over the allotted legal limit of 15 wins per person that would show on the game. Anything over 15 wins, and the bar owner would illegally pay you cash on your winnings, cashing in more so on failed attempts. With the advent of video game arcades for kids, the concern deepened. Watch groups sprung up overnight in cities across the US, claiming video game parlors/arcades taught children how to gamble. Between 1979 and 1982 parent watch groups had petitioning the Supreme Court numerous times, over and over again, citing video game parlors as a detriment to good old fashioned American morality.

To me, it's no surprise to see how all of these facts got misconstrued into an urban legend of

a game that, for all respects, did not exist. I believe it didn't exist as there would have been no reason for it to. By 1981 the video game industry was a booming business being threatened by a handful of moral zealots who, although small in their numbers, had the potential to cause serious harm to the future of gaming under the Cold War Conservatism of Reagon Era America. With arcade games already under intense scrutiny by The Supreme Court, no one in their right mind would have made a game like Polybius, or even wanted to. The last thing on any game developers mind was to create a game that caused physical harm.

I'm actually surprised the legend doesn't claim the Russian Government made it. That would have made more sense at the time, given that a political poll from 1980 shows that 3 out 5 American voters still thought the former Soviet Union was a military threat.

Case Fact: Oregon Records of Arcade Incidents

The actual events that I believe began the legend are relatively simple.

At the MGP arcade, on November, 27, 1981, beginning at 11:00 am, 12-year old**,** Brian Mauro, as

Brian Mauro
1981 Asteroids

recorded by *The Oregonian* newspaper, blasted away at *Asteroids* over the Thanksgiving Day 3-day weekend, in a bid to break the world record of 30.1 million previously set by 16 -year old Dennis Hernandez of Geneva, NY.

Hernandez game had lasted 52 hours, 11 minutes. Mauro believed he could beat it, and so did his father, Joe, who remained at his son's side the whole time in support. Wearing wrist braces and special gloves, and donning a tuxedo for part of his game, young Mauro gave it his all. But 28 hours into a 48 hour challenge, taking only Coca Cola and orange juice for nourishment, Mauro succumbed to painful cramps in his arms and serious gastrointestinal upset, forcing him to forfeit his attempt prematurely. His game ended on November 28, 1981. He spent two days in bed, unable to eat anything but small sips of soup, mentally drained from the ordeal. His ending score was 14 million points. He was one of the youngest marathoners in America to achieve such a feat.

But he wasn't alone in having suffered uncomfortable symptoms from going for video game glory, for on the very same day, at the very same arcade, 14-year old Michael Lopez, of Beaverton , Oregon, was challenging his friends on Atari's *Tempest*, trying to beat his buddy's personal best.

According to Mr. Lopez, now a night club owner in Seattle, Washington, he and his friends

were battling it out at MGP, taking turns on the game when, right in the middle of his game, he began to feel strangely.

"I began to feel a weird sensation in the back of my head, then my vision started going out. Little flashing lights. Suddenly I got sick and stumbled outside where I threw up all over the parking lot. One of my friends walked with me back home, but we didn't make it all the way there. My head hurt so bad. It got to where I couldn't speak. I couldn't walk any more. I collapsed on someone's lawn, four blocks from my house, rolling and screaming in pain. It felt like my head was cracking open. Someone called the cops. That was the first migraine headache I ever had. I've had them off and on my whole life since. But it was freaky because I didn't know what was happening at the time."

As a migraine sufferer myself, my first one occurring at age 15, I admit I find the visual pace and subtle flash of Atari's Tempest uncomfortable. Star Wars, too. Any intense visual stimuli coupled with flash in a game will trigger a migraine in me which is why I don't play any early Atari space shooters. My brain can't handle that kind of rapid eye movement. But it's not the game's fault that my basal ganglia have some faulty parts in its complex harness of neurological wiring. Blame that on genetics.

Days later, at school, other kids were already talking about Lopez' "freak out", distorting facts, and adding their own. One rumor was that the game had tried to take over his mind, and when he fought

against it, it fought back. Lopez told them that it was just a migraine and tried to explain it to his friends. But that didn't stop the kids from talking and making their own assumptions about a common neurological disorder they didn't understand.

"My friends were totally weirded out, "Lopez recalls. "They were convinced the game had damaged me. When I got back to school people were talking about how the game was dangerous. I told them, 'Naw...it was a migraine'. But they figured since I'd been perfectly fine up until that point that it had to be the game. And every time I got one after that, they would say, 'Man, that game messed you up.' There were kids at school, who after hearing about what happened to me, would not play it. They'd play every other game but that one. They actually thought it would damage your brain. But then there were the guys who now wanted to play it. It became like a challenge or something. But it was hard to find after that. It just kind of disappeared for a while. I always thought that was weird."

Although no police record remains of Lopez' incident, due to Oregon State regulations that all Police record reports be shredding after 20 years, the dispatch call record on this incident has survived and has been preserved on microfilm.

Enter the Men In Black

FBI seizes video games in gambling raids

Ten days later, news flashed around the State that local police and a bevy of Federal Agents (Men in Black), stormed several bars, lodges and arcades in the Beaverton and Portland area in a "Video Game Raid". According to The Oregonian, on December, 9, 1981, after a year of surveillance a warrant was issued to a 48-year old arcade operator, who later admitted he was rigging his games up for gambling. By wiring the games with a "counter" to record how many games a player had accumulated for play, the arcade owner was illegally paying out money instead of points.

Months later, in Seattle, Washington, *The Oregonian* reported in 1982 that, while kids gathered around Pac Man and other games, the *Games People Play* arcade, a sting operation set up and run by undercover Federal Agents, arrested 25 suspects for the intent to sell stolen property on site. During a seven-month sting operation, one that yielded over $400,000 (1.1M today) in the retrieval of stolen goods, the agents ran a very convincing fake arcade.

Prior to set up and to preserve secrecy, agents had purchased games from Portland arcade operators, wired them with cameras and microphones, and set them up in an arcade in West Seattle. Certain games were favored by agents as being more likely to entice their subjects into staying awhile after selling stolen goods. No doubt the agents believed that during the game suspects might unknowingly make incriminating statements while they played with their friends, unaware they were being filmed and recorded. A popular and difficult game to get at the time due to cost and supply was Tempest, number one on the Fed's game list, along with Scramble and Galaxian. This meant that suddenly quite a few Portland operators were Tempest-less as there were only 3 in the entire Portland-Metropolitan area. The smoked glass bezel on Tempest was ideal for hiding a camera.

According to area operators, the presence of Federal Agents in the arcades prior to the sting purchase was not unusual. Many report that unannounced walk thrus were not uncommon and that local police also made even more frequent walk thrus, checking for truancy and other suspicious behavior. Arcades were seen by many parents as the devil's playground for delinquency and drugs. Law enforcement agreed. They were also, as indicated in numerous reports, places were illegal gambling and fencing of stolen goods thrived. In Portland alone, in 1981, police and federal agents made 52 arrests and 7 raids for the above noted activity. I'm sure not all arcades in the Pacific Northwest were "dirty" but it appears on paper that a lot of them were.

Coinciding with the two "video game injuries" at MGP arcade, then the subsequent disappearing act of Tempest, coupled with kids hearing from their parents how arcades were being raided by Feds, kids had to have been affected in some way by it. Going on hearsay from their parents, and probably upset by the bad rap arcades were getting, kids would have passed the story on, and no doubt added to it their own opinions. I would bet that there was an increased fascination with this so called "dangerous game" and that many boys now couldn't wait to find it and play it.

But chances are they never did. By the time Tempest might have made its way back into the area arcades in late 1982 most of the arcades in Oregon were closed or closing and the new consoles now reigned supreme. That's a lot of teenagers in Portland who never got to play Tempest in an arcade, or only got a single glimpse of it before it vanished, its name forgotten until…

I can see one of them grown up, sitting at the computer 20 years later, reading posts on a forum on *Classic Games* and finding the one about the mysterious Polybius, passed down from the original on Usenet. He would remember the time when he heard of Mauro and Lopez being "incapacitated" by a game. He would recall "the men in black", the raids, and added them in his response to the post. As hindsight in history is often blurred by the present, chances are, his recollection of events were not factual, leaving one swimming in the irony of what the real Polybius warned of in 252 BC, when he

wrote, "*Careful, for when you pick up the pen you may accidentally change history thus allowing the next man in line, with unclear intent, to do the same.*"

That next man was Steven Roach.

The "*New and Improved*" Legend 2006
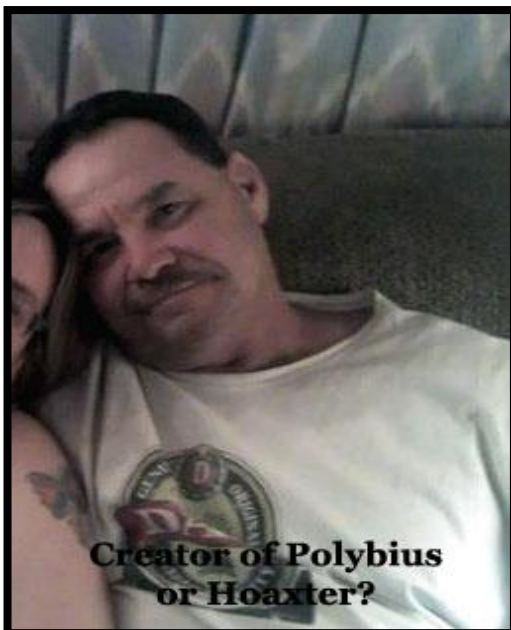
"*I think it's about time I laid this to rest…*"

So begins self-confessed designer of 1981's Polybius, Steven Roach, in one of worst and most see-thru examples of internet hoaxing on the Polybius today. It first appeared on a forum in 2006 on *Coinop.org* on a subject concerning the Polybius Myth, setting off a landslide of new interest in the legend. Abounding with run on sentences and various misspellings it hardly appears to be written by a man capable of creating a ground breaking program. The post is highly suspicious, for not only does it teem with inconsistencies in the manners of business protocol found in early program manufacturing and marketing, but he spells the name of his own

Creator of Polybius or Hoaxter?

company wrong…*twice*:

(Original unedited post)

by stevenroach. Comment: "*I think it's about time I laid this to rest, however entertaining the speculation. My name is Steven Roach who is primarily based in the Czech Republic. Sinneschlossen was a company set up by myself and several other mainly amateur programmers in 1978 that worked on component parts for Printed Circuit Boards that saw programming as a limited but very profitable sideline. I think the fact that it wasn't the focal point of our business took the pressure off of us and hence we created some quality work which quickly gained a reputation within the industry. We were approached around 1980 by a Southern American company that shall remain nameless for legal purposes to develop an idea they had for producing an Arcade Game with a puzzle element that centred around a new approach to Video Game Graphics. They were very keen indeed to gain an upper hand in what was already a very competitive market so we were offered a staggering commission-based renumeration package to develop something special that utilised the technology. We developed the game in little more than two portacabins that were knocked together where we spent many stressful mornings, evenings & nights which was a great pity because it compromised our relaxed and innocently amateurish approach to our business in spite of the financial possibilities. Marek Vachousek was the programmer who came up with the name Polybius - he had studied Greek Mythology at Masaryk University and came up with the name because it sounded quite bold*

and mysterious, which is what we wanted quite simply. The inspiried graphics combined with the puzzle elements and scintilating gameplay was something to behold - we playtested it for hours and hours and it certainly was an addictive game that was well loved professionally and recreationally by all that played it. The company couldn't have been happier and we all thought we were on the verge of something very special indeed. We then received a phonecall stating that there were concerns within the company that the basic graphics which featured prominently in so many other games of the time were fine for the average gamer to spend hours at a time without any noticable physical or mental detriments but the intense and engrossing gameplay of this new step was very much an unknown quantity so the game was put back several months due to divided opinion within their board of directors, much to our consternation for breaking our backs to finish it on time. We received heartening collated playtesting figures and were then told that the game would receive a temporary limited release which bouyed us significantly but shortly after, we received terrible news - a thirteen year old boy from the Lloyd District of Portland, Oregon had suffered an Epileptic Fit while playing the game, only six days after the machines had literally been installed. One of the senior employees that I knew very well contacted me to tell me that it caused immense ripples of panic throughout the company who were of the opinion that they had "created a monster" as such. It may sound laughable now but please bear in mind that this was 25 years ago when the Video Game Industry was in it's infancy. Every effort was made to withdraw the game from the public domain

as quickly as possible but the scaremongering was already out in force and a lot of the children were queueing up or daring their friends to play this supposedly nightmarish game. Company Directors descended on the town to assess the situation which may account for these reports of "Strange Men in Black Suits hanging around" and the machines were often taken in daylight, causing minor but noticable incidents. As far as I was made aware, only seven machines were distributed around the area and no other health-related incidents were reported. I heard "off the record" that the company made a one-off settlement to the boy's family and no more was heard, apart from all the internet-based speculation and resulting paranoia. We disbanded Sinnesscholssen shortly afterwards because we didn't want to restrict ourselves to the stringent deadlines of other companies and favoured distancing ourselves from the game in case of any lingering recriminations which could have done a great deal of damage to our personal and professional reputations which was our livelihood and with some of us having very young families, this was extremely important to us. As far as I'm aware, no ROM's or otherwise exist unless they remain in the bowels of the company that distributed it. We only received a basic payment in view of the fact that the game was withdrawn without nationwide or international distribution so we grew to loathe it and was often a cursed word whenever we used to meet up and still is today, which is a shame. I still believe we created something that should have changed the face of gaming and would have set us apart from the rest of the industry but Arcade Games were often compared to drugs at the time because of their addictiveness and

*we created something that small-minded bureaucrats perceived to be the Heroin of the Video Game World that's only crime was to be many years ahead of it's time. I'm sure people will doubt the sincerity of this so feel free to drop me a line at stevenrroach@*****.com as I'm happy to answer any questions. Steven. "* (2006-03-20 14:21:27Z)

If Roach's testament is true, it's probably a good thing he "disbanded the company" since I checked Sinnesloschen's business license history with *Gewerbeamt* (Trade Office in Germany) and found absolutely nothing. So if they had been in operation, which is doubtful, Sinnesloschen would have been operating illegally.

Also his mention of the programmer of Polybius is not listed as ever having attended Masaryk University in the Czech Republic. No Alumni list anywhere in the country bears his name.

In an "exclusive interview" with Gamepulse (UK) now *Bitparade*, Steven Roach claims the name "Sinnesloschen" (lit. trans. *senses delete*) was coined by fellow program team member, Ulrich Koller, a native German speaker and citizen of Germany. What makes this highly unlikely is that, although comprised of two German words, the connecting of them is highly improper. In fact, they are gibberish when connected as one word. No person fluent in German, and especially a native speaker, would ever say "Sinneslochen" or even put the two words together creatively. It would sound to the ear as "sense away removed" which makes no sense. Someone unfamiliar in German must have had a German/English dictionary handy when they made that one up.

But there is one thing true in Steven Roach's post. When he wrote the post, no doubt drawn to the subject of mind control he found so utterly seductive, he*,* indeed, had ties to the Czech Republic. In fact, he already had plans to relocate there. But he wasn't a businessman. He was the Security Director of a notorious "behavioral modification center" for teens called Sunrise Beach, in Baja, Mexico.

And he was on the run from a reputation as a "dungeon master".

The Mentor of Mind Control

Steven Roach and his wife, Glenda, both former police officers, were part of an organization called, **World Wide Association of Specialty Programs and Schools** (WWASPS), comprised of a complicated network of companies and nonprofit organizations run mostly from La Verkin, a small community near St. George, Utah. La Verkin had at least eight behavior modification schools located in Mexico, Jamaica, Western Samoa, and the United States. They also operated several hospitals and other "service oriented" companies. One of them was *Youth Transport Services* (YTS) which, according to officials, did the kidnapping of wayward children parents paid upwards of $38,000 for Roach and his staff to "reform". Techniques used were akin to prison torture; starvation, beatings, being tied or chained to beds, being forced to eat vomit, lay in urine, blood and feces and, in some cases, rape and molestation.

According to U.S. social worker Donna Headrick and her research team, Steven Roach and his wife, Glenda, were arrested in May of 1996 while running a girls' facility called *Sunrise Beach.* After three teenage girls escaped from the

institution, banging down the doors of a nearby police station, complaining of sexual abuse, an immigration inspector visited the facility and discovered that the girls were illegally in the country. The inspectors found the facility to be more like a prison of torture than a reform center and were shocked at what they found.

Shortly thereafter, Steven Roach, his wife and members of staff, with 41 girls in tow, tried to escape Mexico and were intercepted at the local airport. Mexican federal police arrested them all, including Steven and Glenda Roach, and charged them with depriving juveniles of their liberty and with running an unlicensed and unsanitary facility. Sunrise Beach was shut down by police officials, and the couple eventually managed to leave Mexico, destination, the Czech Republic.

Arriving at Morava Academy in the Czech Republic, 1998, Roach assumed his duties as per usual. He applied and approved methods of "character modification" just as he had in Mexico for those who did not conform to the program's brain washing techniques. Children were subjected to the same forms of "incentive" applied before; isolation, starvation, physical torture and humiliating abuse. He was arrested in November, 1998, for violating terms of operation along with his wife, Glenda and two Czech citizens, and was charged with a variety of offenses, including child torture, thus ending, one hopes, of ever being able to work with children again.

"It was a hell on earth," a former inmate of Morava confessed. "It took me years to get it out of mind. Even then, sometimes it all comes back, and I'm back in that locked room tied to a bed, cold, lost and terrified. I always have to tell myself that it's alright…that it's all over now. But, really, sometimes I wonder if it ever will be."
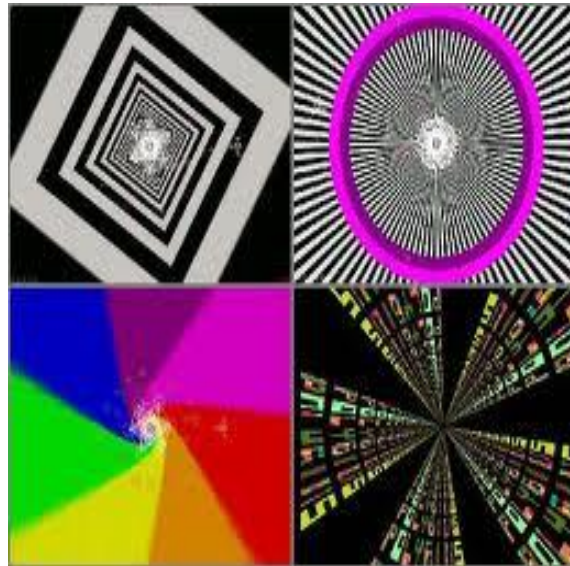
On September, 11, 2011, in the Third Judicial District Court of Salt Lake County, a law suit was filed against the WWASPS for illegal child trafficking, fraud and unlawful confinement. Steven Roach is listed in the names of those being held accountable.

Game over.

The Evolution of a Concept: Polybius Lives

With such a pervasive legend it was inevitable someone would cash in on its appeal. And, really, who could blame them? There is dare devil romanticism about such things dark and unknown, things that are a little bit scary. That "what if?' that makes some want to jump out of airplanes, take psychedelic drugs or circumnavigate the globe alone in a rubber raft.

Created using *DarkBasic*, going off visual reports of the game described by Steven Roach and others, a new Sinneslochen website offered a version of the game to watch or play, adding the
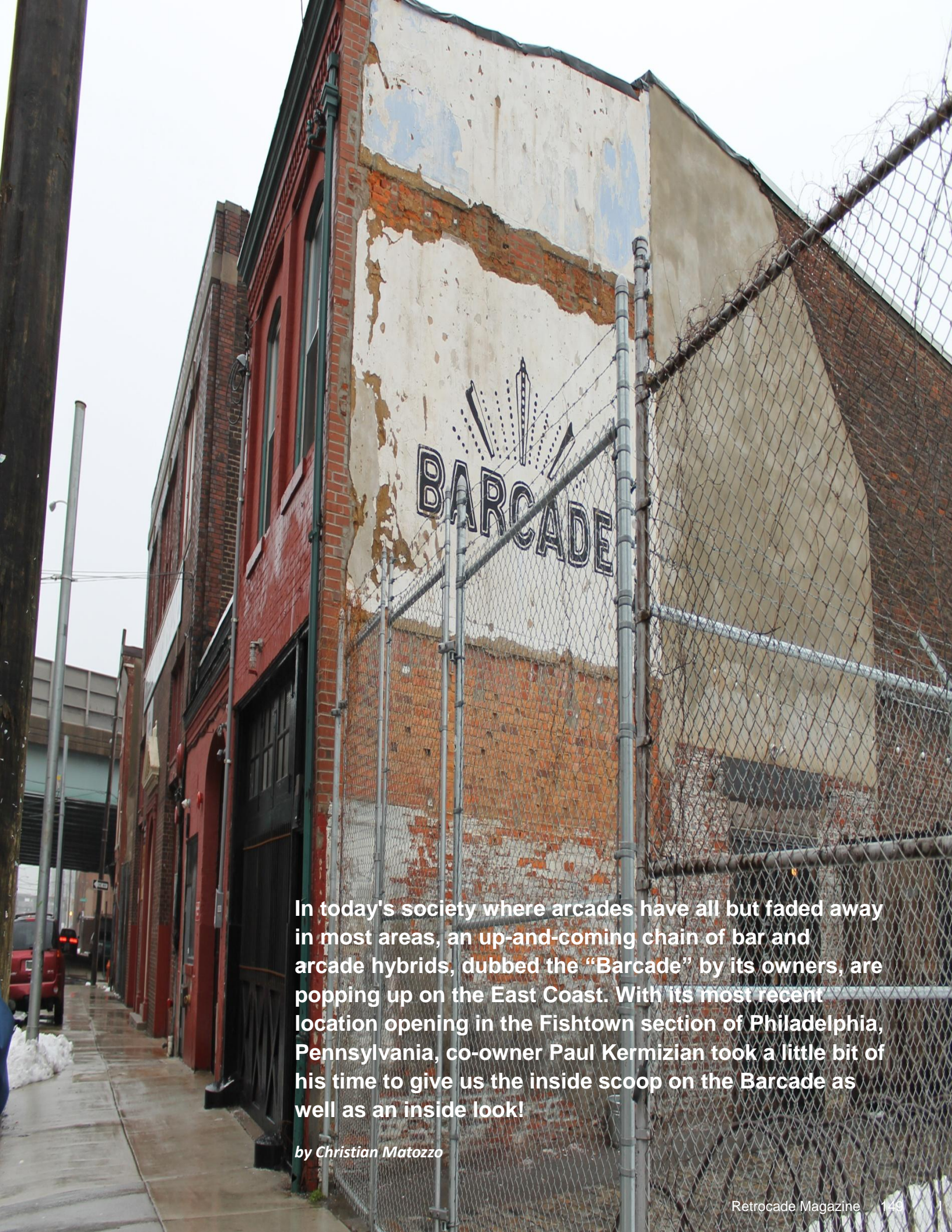

provocative disclaimer that playing it may cause seizures. I didn't last ten seconds. The flashing lights and swirling patterns instantly made my eyes ache.

This is all fine and dandy. Nice and pretty images. But it cannot be even remotely close to what was technologically possible in 1981.

According to legend, and Steven Roach, in an article after the notorious Coin Op post, the original Polybius gameplay consists of a central assembly of enemies, with your ship on the right hand side of the screen. You could maneuver closer to the enemies but the left/right motion consisted of the enemies in the center rotating, not your ship moving around them. This afforded the game a tunnel vision effect, rendered using Vector graphics. What's surprising and highly unlikely is, on level two, the vertigo level increases dramatically, flashing vibrant rainbow colors, forward and backward motion vertigo spins and strobes - designed for a Raster monitor. In 1981, a game developer had the choice of either Raster or Vector display monitors. You could not combine the two as Vectors could not display Raster images, and Raster monitors could not emulate Vector graphics. No way. No how.

During the genesis of video game development I'm sure many games slated for design were scrapped for various reasons. I'm also quite positive games were made with every intention of releasing them, only for the developers to discover they did not, or would not, satisfy the market needs. Perhaps there was a strange game that made the circuit, if but for a short time, that caused the symptoms described in the legend, that prompted mysterious men in black to catalog effects for strange psychoactive government experiments. *Perhaps*. But, frankly, I think there's a better chance of finding Elvis, alive and well, on an alien aircraft, or Big Foot lounging by a mountain stream, than ever finding an original ROM set to a game called Polybius.

Polybius: The greatest game that never was. 🧩

In today's society where arcades have all but faded away in most areas, an up-and-coming chain of bar and arcade hybrids, dubbed the "Barcade" by its owners, are popping up on the East Coast. With its most recent location opening in the Fishtown section of Philadelphia, Pennsylvania, co-owner Paul Kermizian took a little bit of his time to give us the inside scoop on the Barcade as well as an inside look!

by Christian Matozzo

How did Barcade get its start? In a day and age where arcades, let alone classic arcades, are virtually nonexistent, where did the idea come up to mix arcade games with the bar environment? Did you frequent arcades as a child? And did you yourself come up with the idea for Barcade or was it a co-effort?

Kermizian: We opened in 2004. I had a small collection of classic cabinets in my Brooklyn apartment: Zaxxon, Pac Man, Tetris and Mappy. The games were really popular when I'd have parties. When my partners and I started throwing the idea around of opening a bar, we looked at the games as something that could be fun, different and that we were all into having played all these games as kids. We had all visited plenty of arcades. My partners and I are all late 30's to early 40's so we grew up in the classic arcade era.

How were the arcade machines used at the Barcade locations obtained? Are you an arcade collector yourself, or are the machines rented or bought from other businesses? Are the machines at Barcade serviced by in-house staff?

Kermizian: We buy from all different places: from collectors, operators and sometimes even off eBay or Craigslist. We don't rent or lease any games. We own our entire collection and most of our repairs are done in-house.

Is there a specific line-up of arcade games that are preferred or used at each Barcade location? Does Barcade focus on strictly '80s Golden Age era games or are games from all eras represented?

Kermizian: There are specific titles that we always want to have at a location. We focus on the golden period of arcade games which would be 1979-1984. However, we have plenty from the mid to late '80s and have even started throwing the odd '90s game in here and there. There are certain games that are must-have if you are doing this like Donkey Kong, Ms Pac Man, Galaga, Frogger, Tapper and some others. Then, we fill out the lineup with a mix of other styles of games: scrolling, maze, driving or 2 or 3-player games and try to mix it up.

What are some of your favorite arcade games?

Kermizian: Tapper, Timber, Zoo Keeper, Mappy, Swimmer, Eyes, Pepper II, Cheyenne, Cosmic Avenger, Ladybug, Burgertime, Strider, Rolling Thunder, and Lock n Chase.

Barcade features quite a variety of different beers on tap. How are they selected?

Kermizian: We only serve American craft beer and only beer on tap. No bottles or cans. We try to focus on local and regional breweries but we do serve beer from all across the country. Everything rotates and so the selection is constantly changing.

Which of these do you find draws a larger crowd to Barcade: The selection of classic arcade games, the selection of beers on tap, or a little of both?

Kermizian: Both. We couldn't have one without the other. There is a surprising amount of cross over between people who are into classic games and into craft beer.

With the recent opening of the Philadelphia location, Barcade now has 3 locations. Do you plan on opening more locations in the future? Did you predict that the idea of the Barcade would be this successful?

Kermizian: Yes, we plan on getting to work on some new locations right away. We never could have predicted the success that we've enjoyed. All we wanted to do was make a bar that we could all drink craft beer in and play Gauntlet. Thankfully, other people seem to have wanted the same thing.

The video games of today are arguably quite different from the classics of the '80s that you and I enjoy. Do you think that the success of Barcade will help in bringing classic arcade games to a larger audience? Especially in a time where arcade games, as a whole, have been all but forgotten by a generation that has grown up playing entirely different kinds of video games?

Kermizian: I hope so. These games are wonderful, unique and timeless. It doesn't matter if you are too young to remember the original: the games are just fun.

Will we someday see a revival of the dimly light rooms that were once populated with lots of people striving to etch their name in a place of honor amongst high score boards?

Kermizian: I don't think you'll see many new arcades opening. You need a lot of space to have a decent selection of games and of course a lot of patience if you are dealing with vintage cabinets. And our locations are pretty different from a traditional arcade. We do have high score boards though with some pretty epic scores on them.||Retrocade Magazine thanks Paul Kermizian for giving us his time and cooperation! If you ever find yourself in Philadelphia or want to take a trip to the Barcade, it is located at 1114 Frankford Avenue, Philadelphia, PA 19125. The hours are 4PM to 2AM Monday to Thursday and 12PM to 2AM on Friday, Saturdays, and Sundays!

Beer Menu (Top Chalkboard)

SIXPOINT SMP · NY · $6
SIXPOINT HIBISCUS · NY · $6 · 10oz
YARDS ESA · PA · $5
LEFT HAND MILK STOUT · CO · $6
ROGUE ST. ROGUE RED · OR · $6
VICTORY HOP DEVIL · PA · $5
BROOKLYN WEISSE · NY · $5
BELL'S OARSMEN ALE · MI · $6

GREAT DIVIDE OLD RUFFIAN · CO · $6 · 10oz
ROY PITZ LAY DOWN STAY DOWN · NY · $6 · 10oz
CLIMAX BAVARIAN DARK · NJ · $6
AVERY DUGANA IPA · CO · $6 · 10oz
FURTHERMORE FATTY BOOMBALATTY · WI · $6
SIXPOINT BELGIAN IPA · NY · $6
AVERY NEW WORLD PORTER · CO · $6
BELL'S KALAMAZOO STOUT · MI · $6

DOC'S PEAR CIDER · NY · $5
WEYERBACHER FIRESIDE ALE · PA · $6
BALLAST POINT LONGFIN LAGER · CA · $6
LAGUNITAS PILS · CA · $5
VICTORY OTTO · PA · $6 · 10oz
NORTH COAST PRANQSTER · CA · $6
ALLAGASH THING 2 · ME · $7 · 10oz
WEYERBACHER OLD HEATHEN · PA · $6 · 10

BARCADE HIGH SCORES

Game	Score	Player	Date
ARKANOID	355,590	BOB R	12/30/11
ASTEROIDS	43,390	BOT	12/1/11
BERZERK	24,220	BEN	1/2/12
BURGERTIME	74,300	SHAKA	1/8/12
CARNIVAL	42,210	BEN	12/13/11
CENTIPEDE	610,928	BEN	12/12/11
CRYSTAL CASTLES	770,424	GIV	10/8/11
DEFENDER			
DIG DUG	669,490	BEN	12/12/11
DONKEY KONG	897,200	BEN	12/5/11
FROGGER	401,140	PAT L	10/11/11
GALAGA	294,170	PAT L	10/11/11
JOUST	10,058,850	LONNIE McDONALD	12/28/11
MAPPY	135,040	PAUL K	11/9/11
MS. PAC MAN	861,990	SAM MILLER	10/22/11
PAPERBOY	204,393	EVIL VICT	1/6/12
POPEYE	200,600	BEN	10/8/11
SPY HUNTER	208,710	MARK C.	12/14/11
TAPPER	182,400	GIG	10/19/11
TEMPEST			
TIME PILOT	727,200	FANCY	12/5/11
TRON	52,732	LOU	12/1/11

Retrocade Magazine thanks Paul Kermizian for giving us his time and cooperation! If you ever find yourself in Philadelphia or want to take a trip to the Barcade, it is located at 1114 Frankford Avenue, Philadelphia, PA 19125. The hours are 4PM to 2AM Monday to Thursday and 12PM to 2AM on Friday, Saturdays, and Sundays! 🏃

AVALANCHE OF FUN

HERE COME THE SNOW BROS

by Elena García Méndez

The first recollection I have of this classic Nintendo game is from when I was eight or nine. Normally here in Spain we celebrate the Three Wise Men instead of Santa Claus. But lucky me, I had presents on both days: from my parents on Christmas and my grandparents on the day of the Three Wise Men (6th of January)!

My tradition was to spend the night at my grandparents' so that the next day I could open the presents with them. One of my gifts was *Snow Brothers* for my Nintendo Entertainment System! Truth be told, I don't remember the other gifts, just this one!

Some later memories come to my mind, such as playing the game with my cousin and of course the little arguments we had: "You grabbed the red ink and you already have one!!" (Notice here that in our kidlike way of speaking, "spice" was replaced by "ink".)

This was probably the first arcade game I got into. It was addicting and enjoyable to play, especially with another player either as part of a team or as an opponent!

The memories of these good times are one of my main reasons for reviewing this game.

So let's go!

Capcom Company
The videogame developer and publisher Capcom was founded in Japan in 1983 from the IRM Corporation and Japanese Capsule Computer Company, Ltd. "Capcom" is a combined abbreviation of "Capsule Computer".

The company's first released creations were the arcade games *Little League* and *Vulgus.* In 1985, Capcom expanded into home console games. The company's games include *Resident Evil, Street Fighter, Devil May Cry, Mega Man,* and *Chaos Legion. Snow Brothers* was released as an arcade game in 1990, and as a NES game in 1991.
Capcom is based in Osaka, with divisions and branches around the world in Europe, East Asia, and North America.

Snow Story
The evil King Scorch has turned our two heroes Nick and Tom into snow men and kidnapped their two girlfriends, Teri and Tina!
Like most all classic games, your mission is to rescue your beloved girlfriend(s) and save the world (in this case, the kingdom of Whiteland).

Before You Start
Here are a few considerations to take into account before you start playing the game:

First of all, the game is designed in such a way that as you go up one level after another you have to

defeat the evil creatures that are under the order of King Scorch. And how do you beat them?

Easy! Use your "B" button on your Nintendo controller to throw snow. Little by little, your enemies will turn into a big ball of snow. You can also press this same button to throw the snowball at your other enemies.

If you hit them, your enemies will reward you with a gift. There are two types of gifts: objects that make your score go up, up, up; and three spicy sauces in jars. As for the gifts, you may encounter a sweet, mushroom, lollypop, cake or sandwich, among others.

Pay special attention to the stages as some of these gifts are hidden. Just keep firing snow and maybe a hamburger will appear for you! Yummy!

The three spices are:
- Red spice: This one will give you skates, so you will be allowed to move much faster in the stages.
- Blue spice: This will give you more powerful shots, enabling you to throw bigger snowballs.
- Yellow spice: This will give you the power to throw snowballs much further.

There is a green spice which gives you superpowers, but it is very scarce. It will turn you into a big flying invincible snowman. You can fly and float all over the stage and destroy all the enemies in your way.

Secret Treasure Stage
If you manage to destroy all of your enemies with one snowball, you will see a face appear. Grab it! This will lead you to King Scorch's Secret Treasure Stage for a few seconds. You'll know you're there when the screen turns black and white.
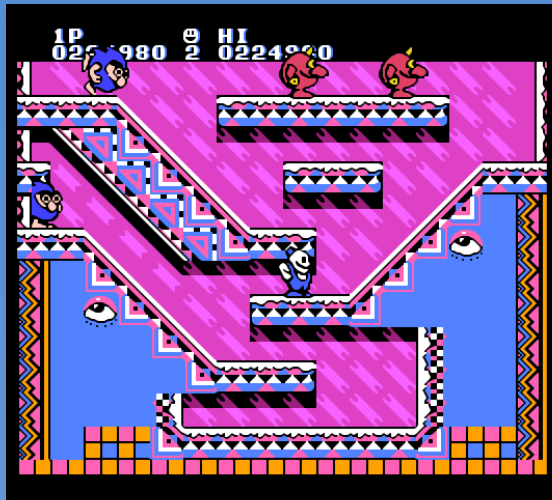
In this secret treasure stage, you will encounter blue faces. The procedure is the same here as always: Hit the B button to pile up snow, and then push the snowball to create an avalanche.

In this stage, each face represents one letter in the word "snow". If you collect all the letters to spell "snow" you will earn one extra life. The letters that you earn will appear to your upper left onscreen. They will remain there until you manage to spell the word "snow" or you finish the game.
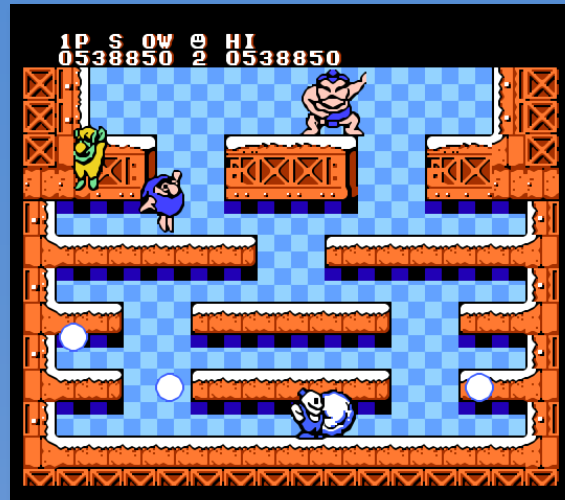
Boss Levels
There are 50 floors in total that you must go through in order to beat this game. Every ten levels, you have to defeat a boss. Here is a list of them:
- **Super Lizard** (Level 10). His method of attacking is jumping up and down from a platform while throwing little enemies at you. Use them to form snowballs and counterattack! After a few hits, you will gently put him into sleep. You can still throw snow at him to earn extra points if you like!
- **Pink Cannon Head** (Level 20): This boss will have no mercy in throwing multiple enemies in all directions. You will have to be careful to avoid them if you don't want to get killed! As always, use the enemies to form snowballs so as to defeat him!
- **Two Birdies for the Price of One** (Level 30): These two birds will throw eggs at you that will turn to - yes, you're right, enemies! In this case mini birds. When one of the birds lands, use the snowball you have formed to eliminate him. The birds only need three hits. They are originally yellow, but later will turn into iced blue and then pink, meaning they are dead!
  A very useful tip here is not to jump the platforms and always stay at the bottom of the screen. After those few hits, you will soon be in level 31.
- **The Green Goblin** (Level 40): This big rounded goblin will use his hands to walk along the stage. His belly touches the ground, so it will seem to you that he's crawling. The enemies this time come out of his mouth in the form of flames!
- **The Stone Statues** (Level 50): This is the final boss. You will come across two stone statues here that throw bubbles at you. If the bubbles envelope you, you will have to hit your throw-snow button so as to escape! If you don't, the bubbles will keep rising, carrying you to a certain death in the form of spikes!

Brrr! It's freezing with Chilly and Igloo! Hurry! Make snowballs, and all will be cool!

Look at Icy! See how he stands! If you kill him, that's twenty grand!

Watch out! These Fridges are skilled! Fussing with fire can get you killed!

Here little birdies, I'll turn you to snow, so I can kill big birdies with six blows!

Tick -tock boom! Tick-tock boom! Turn bombs to snow or meet your doom!

Icy Bats and Shiver—don't be appalled! Your job's the same: Just turn them to snowballs!

However, this isn't all bad. If you practice this technique you will be able to obtain some of the prizes which are enclosed in these bubbles, such as the red and blue spices!

There is even more to tell you: the bubbles also produce enemies and fire. You will distinguish them because the first are blue and the latter shows as a red ball. When the bubble explodes because of the spikes, it will set free either the enemy or the fire. Watch out for those flames and use the enemies like always to form snowballs and destroy these statues.

The bad news is that it takes about 10 hits to destroy one of the statues. My advice is to focus on one statue first, as it will free up space to avoid those bubbles, enemies and fire.

Bonus Levels

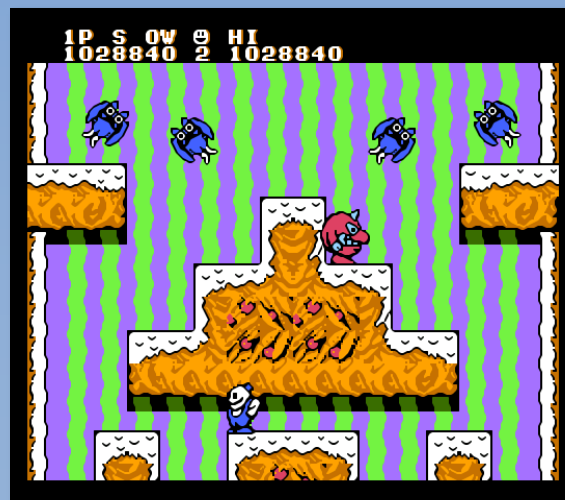After killing all those bosses, there has to be a little compensation—in this case, we are allowed to play a slot machine! Press the button to start the slot machine and press the button three times to make it stop. You will be rewarded with three prizes if you have done well!

You can either obtain a Snow Brothers doll, that will earn you an extra life (getting three will be really something!) or more letters to add to form the word "snow". Remember that if you are able to spell it, you will also earn an extra life! You won't want to get the X though, as you will obtain nothing from that!

The Other Enemies

These enemies are the ones you will meet in the ordinary levels. The amount of them varies, but normally it is between four and five. Here are the names of some of them:

- **Chilly and Shiver:** These are rounded characters with spikes on their heads. Shiver is much faster than Chilly, and moves horizontally.
- **Frogger and Fridge:** These are monkey like. They have the power to climb and sometimes produce fire.
- **Igloo**: This is a blue enemy, also rounded like Chilly and Shiver yet he can turn himself into a tornado and chase you all around the stage! While he is in tornado form, nothing

will stop him and you will not be able to destroy him. All you can do is run away!

- **Icy**: This is a sumo wrestler located sometimes on a platform that is impossible to reach unless you jump on a snowball. If you don't kill him, he will throw energy balls all over the place with the hope to get you. If you hit him, however, you will earn a dollar bill worth 20,000 points!
- **Icy Bats**: You will encounter these in the last levels of the game. They move around the stage, occasionally pausing for a while. Sometimes they are hard to reach, and you will have to jump to aim at them.
- **Pumpkin Head and Chilblain**: Pumpkin Head will appear in any non-boss stage when you stay on a floor for too long! He is not beatable and even if you try, the only thing that will happen is that he will appear again in some other part of the stage. He can throw ghosts (Chilblain) at you, and they will also pursue you. Simply try and get out of the room as fast as you can to make them disappear!

The Verdict

Before grading this game, there are a few aspects I should mention first:

The game's challenge will be over more quickly than you think! Even though *Snow Brothers* features 50 levels, you will finish this game in about 30-40 minutes. I must confess that the game's playability is far better if you are with a friend. In my case, it was my cousin! By all means, play this game with someone, as it will be much more entertaining!

The enemies don't get any more difficult as you progress in the game; they all have to be beaten in the same way, with the exception of some bosses who require more hits to be killed, and the unstoppable Igloo.

There seems sometimes to be no difference between playing level 25 or 47, because the method of beating the enemies and the required number of hits are identical.

Regarding the graphics, the floors/stages are brightly colored in a psychedelic kind of way. It would be impossible for you to forget them!

The characters, though simple in their design, are also pretty varied and add that colorful feeling to the game.

Following with the sounds and effects, the most characteristic noise that sticks in my brain is the crazy gulping-chirping which occurs when you die.

As for the soundtrack itself, even though it's catchy, you will soon grow bored with it. I remember wanting to get to level 40 because its rhythm changed. The variety of songs is certainly lacking.

On the plus side, the controls are very good. Your character reacts quickly to whatever you would like him to do; though the slowness of his walking can sometimes be frustrating. You want your character to move faster so that he doesn't get killed!

With regards to originality, do you remember that other arcade game called *Bubble Bobble*, developed by Taito? Well this game is basically the same; it only differs in that you throw snow instead of bubbles. Yet I should point out that this game is more attractive (at least in my opinion) than *Bubble*.

All in all, and weighing up all these aspects, I should say that this game is addicting and you will want to replay it with a couple of friends. You might miss greater challenge and variety, but it will certainly keep you and your friends entertained.

Grade: B 👾

Mark Alpiger
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Not many people know that players can submit scores to you.

Alpiger: Absolutely. Players can only submit world record scores as of this time. It has to be a world record as per all other accepted scoreboards. So, if it's a MAME score, it has to beat the highest score submitted to Twin Galaxies or MARP and it also has to beat the best arcade score. If it doesn't even beat the arcade world record I don't care about it because arcade is original and that takes top priority. But, if somebody beats the top arcade score in MAME I'm interested in that score. And of course if, it's a top arcade score I'm interested in those as well. 👾

Driving Crazy

By Randy D. Pearson, 2010. Reviewed by Rob Maerz

Driving Crazy is a story of two down and out friends, Jay and Austin, who travel from Michigan to California to pick up the Crazy Climber arcade cabinet they won off of eBay.

Trouble rides alongside their every mile and the book is reminiscent of Neil Simon's "The Out-of-Towners." I found myself wincing at the trouble the boys were getting themselves into and wondering what could possibly go wrong next.

Don't let the cartoon cover fool you – this isn't a children's book as it contains adult themes and adult language.

This is a very humorous and well written book that all classic gamers will enjoy.

What follows is a full chapter excerpt from the book. Enjoy the ride!

Chapter Four

The next morning, we packed up our belongings, swiped a couple towels and some cockroaches, and checked our money. My duffel bag still held the Crazy Climber cash, and we had a little less than seventy dollars of Austin's money. Thankfully I charged the room and filled up the tank before I lost the card.

Austin reacted in a very cool manner over the whole ordeal. He could have bitched at me, but it wasn't his style. Frankly, it amazed me he didn't outright laugh at me.

Hitting the road fairly early that morning, we found the I-40 expressway with relative ease and started our westward trek toward Weedpatch.

I had spent the last forty-five minutes staring out the passenger window at the constantly moving landscape, not really focusing on any of the sights as they flew by. Turning to look at Austin, I became a bit concerned at the droopiness of his eyelids. Fearing this as a possible harbinger of a bad situation, I uttered, "Are we there yet?"

When he barely responded, I knew I had to do something to jar him awake, so I quickly punched him in the arm. He looked at me with venom in his eyes. "Ow! What the hell?"

"Slug Bug."

"I beg your pardon?"

"I just saw a VW bug."

"So?"

"If I see one, I get to punch you in the arm."

Looking both angry and confused, he asked, "Why?"

"It's a game."

He continued to glare at me until an evil grin crept upon his face. "Okay fine. I'll play along. The next time I see pavement, I'll punch you in the face. Oh look, pavement."

As he balled up his fist and cocked his arm back, I quickly yelped, "Okay, you win. No Slug Bug."

"Uh-huh. That's what I thought."

Sighing, I returned my gaze to my window. Without looking over at him, I said, "Man, I'm bored. We gotta do something. We could do the license plate game."

"Okay." In one rapid motion, he slugged me in the arm. "I saw a plate."

"Ow. That's not how you play. We're done with the punching."

He whacked my arm one more time. "Now we're done with the punching. And by the way, I'm alert now, so thanks." He flashed me a smile.

Being much poorer, we tried our best to drive straight through to California, which honestly turned out to be impossible. We survived on vending machine junk food and water all the way past Amarillo, Texas, but even taking turns driving and dozing, we both became really fatigued and had to stop for the night in the border town of Glenrio.

We thought the last place we stopped at was a dive. This motel looked so bad that even the cockroaches we swiped from Nashville took one look at the room and skedaddled, snickering amongst themselves. But frankly, we knew we wouldn't find a place that charged less than this hole, so we reluctantly took our chances staying at the Route 30 Motel. We found the name rather queer, since we were on I-40. It lowered our opinion of this place another notch.

Walking across the parking lot and down the street a block or so, we came upon a bar called the Prairie Rat Saloon. It either had a dirt floor or a very dirty floor. Neither of us had the inclination to get down there and check. We sat at the bar and decided to splurge on burgers and water. The bartender gave us water drinkers a foul look, but I think he felt better when he served our tap water in dirty glasses.

"So Austy, another day'll get us to Weedpatch."

"Yup," he replied as he scanned the room, "but we'll probably get there in the middle of the night. We'll hafta camp out in his driveway 'til morning."

"Hopefully, it'll be dry. I'll sleep in the back. You can take the cab. After all, it's my fault we're in this predicament."

Austin paid little attention to me. He spotted, in this mostly empty bar, the usual row of arcade games, and among them, the seemingly omnipresent Galaga. "Well,

look what they got here. I wonder if we'll see Galaga at every place we stop?"

"I wouldn't be surprised. If a place wants a video game in the corner, it's an easy choice. Everybody's heard of it, everybody loves it. It's easy to play, difficult to master."

Leaping to his feet, Austin pulled out a ten-dollar bill and tossed it on the counter. "That's for food. You know where I'm going."

I wanted to complain, but hell, at least he had money to blow. Besides, this cheap entertainment only cost a quarter or two.

He marched up to the machine, and observed a local guy finishing up a particularly crappy game. Only on the sixth level, he tried in vain not to lose his last ship. Even from my seat several feet away, I could see Austin holding in his laughter. The man, wearing the standard issue cowboy hat and boots with his white button-down shirt, squirmed around like mad, as if body English would somehow translate into a better maneuvering ship. It didn't. When his ship exploded at the end of the level, he spewed a few expletives and shot an angry glare at his buddy, standing next to him leaning up against a pinball machine. Then, he noticed Austin behind him with a quarter in his hand and a grin on his face. "Yew prob-lee think yew kin do better, don'tchew, boy?"

Austin, not always thinking before opening his mouth, said matter-of-factly, "Uh Yah! My dead grandmother could do better."

The man, a couple inches shorter than Austin's five-foot six-inch frame, took only one step to the side, not leaving enough room for Austin's husky physique to squeak by. As Austin pushed his way past, the guy said, "Bet yew think yew could beat me in this here game, huh fat boy?"

Austin looked at him and let loose with a loud chuckle. "In my sleep, pal. See that high score?" He pointed to the score of 150,630 that adorned the top of the screen. "I can top that without breaking a sweat."

The tiny cowboy turned and yelled to a man sitting a couple tables away, "Hey Dwayne, this Twinkie sez he kin beat yer high score!"

I heard this just as I took a huge bite of my burger, and almost spat the congealing mouthful at the bartender. I watched as the guy stood up. And up. And up. To say he loomed large was a mild understatement, kinda like

saying the Grand Canyon was a pretty decent-sized hole. He sauntered slowly over to Austin and spoke very slowly and in a deep baritone voice, "I'll bet ya fifty bucks I can beat ya."

It didn't come across as a request, more like the statement, "We are betting, and that is that." I stood up and took a couple of steps toward the group, but before I could get close enough to say anything to my friend, he stated, "You're on, Gargantua. You wanna go first?"

Big Man stood arrow-straight, jabbing a meaty finger at the screen. Austin shrugged, tossed in the quarter and proceeded to have himself a fine game, topping the guy's high score by a bit. Pointing at the new high score of 187,220, he turned and beamed at the crowd that had gathered around the machine. Then, after flashing the same cocky grin at the big guy and the little guy, he tossed me a nod and a wink.

The behemoth, with no discernable emotion, rested his left hand gently on Austin's right shoulder. He patted it a couple of times like he would the top of a dog's head, then used his right hand to punch my buddy solidly in the stomach. Not surprisingly, this evaporated the grin from Austin's face. When he doubled over and hit the floor, gasping and wheezing like an asthmatic, Dwayne calmly slipped in front of the machine, slid in his quarter and began playing. Pushing my way through the crowd, I crouched down next to my friend. At his insistence, I helped him to his feet so he could watch the action.

Turned out Dwayne played a pretty mean game as well, even though he did lose two ships pretty early on, giving the recovering Austin a reason to start smiling again. However, once he found a groove, the big man just kept playing and playing, going through several levels without losing another ship. When his last ship exploded in a puff of blue smoke, the machine had a new high score up top of 194,480. He had beaten my friend at his own game, so to speak.

Dwayne slowly pivoted around to leer at Austin, a satisfied grin spreading across his rugged face. Not uttering a word, the big man simply held out his right hand, palm up, and continued to smile as the rest of the crowd cheered loudly.

We quickly finished our food and drinks and vacated the premises. As we shuffled out of that horrible place, their laughter and mocking was palpable even after the door slammed shut.

As we made our way back to the room, I turned and yelled, "What in the hell were you thinking, Austin?"

"Don't start with me."

"But c'mon, fifty bucks! You know we…"

Austin turned sharply, grabbed both my shoulders and spun me to put us eye-to-eye. "I said stop. I didn't harp on you for your stupid move. It's done. Drop it." With that out of his mouth, he gave me a slight shove, turned and stormed into the motel room.

I stood there for a moment before entering, kinda wishing I smoked cigarettes. Now would've been a prime opportunity for a reason to linger outside. But instead of polluting my lungs, I simply leaned up against the truck for a spell. Staring up at the full moon, I crossed my arms, attempting to ward off the slight chilliness of a summer night in Texas. As a couple of high, puffy clouds slowly drifted past, I had to wonder if we had any money left.

After about fifteen minutes of cloud gazing, I entered our room. I could hear the shower splattering water into the tub, so I decided to climb into my bed and attempt to fall asleep.

I really wanted to scream, yell, and even smack the crap out of Austin, but seeing how he didn't do that to me with my monetary mishap, I bit my tongue hard enough to pop it off and leave it in the dirt of that nasty bar's parking lot. At least in losing my money, I didn't get physically abused. Poor guy.

I didn't have any luck falling asleep before Austin emerged from the bathroom. Without a word, he ambled over to his bed and plopped down.

Hours later, I had counted all the dots in the ceiling tiles. Since I didn't hear any snoring, I knew sleep was avoiding Austin's brain as well as mine. As we both lay awake, I softly asked him if we had any money left at all. "Hell," he said, "I was just praying he didn't count the money I gave him. It's one reason I wanted to leave so quickly."

"Huh." I really couldn't think of anything else to say. Other than the three hundred and ten for Crazy Climber, we had nothing. This could certainly pose a problem for us.

Then, he said something that surprised me. "I'm sorry, Jay. That was the dumbest thing I've ever done. I got swept up in the moment. I guess I figured I could get some of your lost money back. It just happened so fast, y'know?"

No matter how mad, disappointed, or depressed this situation made me, I truly couldn't blame my friend for his decision or for the contest itself. Having known this guy forever, I have seen him play Galaga countless times. In all the time we'd played against each other, I had been the victor maybe three times, to somewhere in the ballpark of a million second-place showings, and I knew my way around that game like nobody's business. Practically no one could beat me, except for Austin Ridenour, of course. Quite simply, he was the best Galaga player I knew. A heavy sigh snuck past my lips. "I know, dude. But in all honesty, given the same situation, I would've bet on you too. The guy looked like an inbred redwood. Who knew he could play?" But it didn't change our dire situation one iota. Now, we faced a serious dilemma. "Question is, should we continue onward to Weedpatch, or tuck our tail between our legs and scamper on home?"

"We're so close. Let's get there, get Crazy, then we'll figure out something. Maybe we can get some money from your parents."

The thought of begging for money, especially from my folks, made me bristle. I lay in the lumpy bed for a while, worrying myself to sleep. ⁂

I went over with him a couple of times to talk to the guy and see what was happening, all that kind of stuff. They turned out not to be very expensive at all.

SoCal Mike: Did the company that made those, were they in the business of anything else, like making sail boats or boat holes or anything?

Ted: No, no, swimming pools.

SoCal Mike: Oh, swimming pools, okay, that makes sense. That makes sense. And do you know why all the different colors came out? Was it just they run out of a color and they'd start a new color or…

Ted: Yeah, yellow was the one we went into production with - we had no other color other than yellow. I guess Nutting changed colors later on or something, I don't know.

Scott: Yeah the one that I've got is a beautiful sparkle blue and it just really grabs your eye.

Ted: No that was all Nutting's doing because we were gone by then.

SoCal Mike: About the controls, I mean, as long as we're still talking about the cabinet, it looked like that there was a few different control schemes. Of course the one player and the two player is different because I think the one player's got the buttons, the two player's got the sticks, right? But wasn't there something you guys call it like the rocket control? It's like a lever?

Ted: Yeah it was a cast piece of aluminum that we tried to bolt to the thing but the trouble is it had so much torque that kids were breaking it. And we couldn't use that.

Scott: So, Ted, your name comes up a little bit when it comes to woodwork. You built a board which you mailed to Curt Vendel that you used to play Go on.

Ted: Yeah, that's when Nolan and I worked at AMPEX. He had learned this game of Go, or he was learning this game of Go and so he wanted me to learn it so he could play because he had nobody to play against because there was nobody who had played Go. I said okay fine, we'll start doing it and so we bought this cheap Go set that had this old fold-out board and we were putting the fold-out board on the wastepaper basket so we could play it and it was just too light, it was light weight, it kept bouncing around.

So I found this wood shop that was making doors and one of the things, when you make a door, is you have to make a cutout so can put a window in. Well, they were selling these cutouts, you know, for about six dollars apiece or something like that, I don't know. So I bought a bunch of them, a couple of them, and carved a Go board on it. It looked pretty good, that was real heavy because it was an inch or an inch and a quarter thick and I remember forty five by thirty five or something. And we could set that down on that wastepaper basket and it was really solid. That worked good so we used that as our Go board.

But we had a problem. Our office was kind of small. It was actually built for one person. And with the two of us in there it was really small, we didn't have a place to put the board when we were through with it. So I made another one and I put the AMPEX Video File logo on one side, put the Go board on the other side, put a nice frame around it and put a screw bolt in the top of it, a screw eye on the top of it, so we could hang it on the wall. We put it on the wall with the Video File logo out so you couldn't even tell it was a Go board. So nobody was going to complain.

Scott: Now you also, it's rumored, that you built the cabinet for the Pong game that went in to the Andy Capp tavern, is that the case?

Ted: Yeah, yeah. There was a small one in it - it was a small cabinet that sat on top of a barrel.

Scott: So were you a woodworker as a hobby?

Ted: No, no, no, I'm not a woodworker. It's the kind of thing I've got to do it so I do it, you know.

Scott: You get the job done.

Ted: Yeah, but I'm not a woodworker. But you know, I'm an engineer so basically I'd know how to measure things, how to cut things, and how to put things together and how to screw them down, you know, that kind of stuff.

SoCal Mike: This might be a dumb question then, Ted, did you know the barrel Pong machines that were in the barrels?

Ted: Yeah, I'm the one that went to Canada and bought the barrels.

SoCal Mike: Whose idea was it to make an arcade game out of … into a barrel?

Ted: Nolan. Every idea, it was Nolan's idea.

SoCal Mike: Well, that's a strange one.

Ted: Well, yeah, remember I told you about these pizza parlors that he always wanted to do? Okay, and with talking barrels and singing bears and that kind of stuff?

SoCal Mike: Right, yeah.

Ted: Okay, so he had this thing about barrels, and he thought of having a Pong game in a barrel would be a great idea. So I went off to Canada and I found out what a 'cooper' was. A 'cooper' is somebody that makes barrels. And, I uh talked to these guys about getting some barrels and wound up buying a few hundred barrels or something like that.

Scott: That's funny because The Book of Nolan says Nolan found wine barrels and created-

SoCal Mike: Yeah, that's what I thought, out of Napa or something.

Ted: Well, he may have done that but we couldn't go into production with the ones he got out of Napa.

The ones from Napa in the first place they're illegal if they had wine in them. You know, because of the alcohol content, you can't really do much with them except cut them in half. If you cut them in half then they're okay. Then you can legally sell them as planters and that kind of thing but you can't sell a whole barrel, because that's against the law.

UK Mike: So if I can just rewind just a little bit, you're probably going to say it was Nolan but who initially had the idea to put Pong machines and Computer Space machines out in, you know, pizza parlors for people to play and to make money?

Ted: Bill Nutting was not the sharpest pencil in the box. All of a sudden, when he was selling Computer Space, he was seeing how much money his salesman was making and he didn't like the idea of his salesman making that much money. Nobody ever told him that the salesman should be the highest paid person in your company, I mean that's the whole idea of being in business! So he fired him!

(everyone laughs)

Because all of a sudden, a salesman that works their buns off year after year, keeping the business going, and as soon as it gets easy, and he's making lots of money and not working very hard, Nutting fired the guy!

So anyway, Nolan and I bought his operation. He had some pinball machines and a pool table, and stuff like that out on locations in different places, so Nolan and I actually bought it from him. So we had these locations, so when the thing came with Bally and Bally kept not accepting the Pong game we decided well we're just going to put it in our own locations. And so we built twelve, we put ten of them out, we sent one of them to Bally, and we kept one in the shop.

SoCal Mike: Did Bally want you guys to make some other type of game for them at the time?

Ted: We had a contract. See, Nolan had contacted Bally early on, but we were still with Nutting. Bally said, as long as you're associated with Nutting, we're not going to talk to you about it. But as soon as you're not with Nutting, give us a call, so Nolan did as soon as … Nolan tried to negotiate with Nutting, you know, for an ownership of the business and all that kind of stuff, which, you know, didn't work for Nutting at all. So we started our own business. We wound up getting this contract, four thousand dollars a month for six months to develop a video game and a pinball machine for Bally.

So I worked on the pinball machine and Al Alcorn did the Pong. In fact, Pong wasn't supposed to be a paddle game. It was an exercise for Al Alcorn in figuring out how to use this motion circuit that Nolan and I had developed. And so he put this thing together because the Odyssey thing was out and he figured, you know, just do the same sort of thing as Odyssey, and just turn Al Alcorn loose.

Al Alcorn was a good engineer, he didn't need anybody's help at all.

Scott: So Pong was sort of an off-shoot of that original dot that you were sort of pushing around at your house.

Ted: Uh, well, Computer Space was.

Scott: Okay but what I mean, the concept of that video circuit. It continued on-

Ted: It's exactly the same motion circuitry in Pong that we used in Computer Space. It was exactly the same, pin for pin.

You know, that was the crux of our whole thing was this motion circuitry, to be able to have something freely move on the screen you had control of. That was the really fantastic thing.

Scott: So, you sort of gave us a window into the dynamic of, you know, Nolan was working at the bench, you were over working in the shop, and all that. How close was the design team, how did you guys interact? Did you guys go to lunch together? How was this? What was the corporate culture?

Ted: Yeah, we went to lunch. There was a place in Cupertino that sold 'Cannon balls' which was a meatball sandwich and so we'd go there for lunch all the time. The only interaction we had there at Nutting was when he got in a bind on how to do something, he'd ask me and we'd sketch it out and he'd say what about this and I'd say how about that. He'd say, well can we do it this way, and I'd say I don't know … yeah I guess we could do it that way or do it that way. You know, that kind of thing. That was the interaction that we had there. Nolan actually did the design work and I worked on the cabinet.

UK Mike: How did you kind of feel kind of as a team, then, I mean you're maybe perhaps competing against pinballs that were already out there and working on location. Did you ever have a sense of it was kind of you the video game people against the pinball people? Were you all kind of fighting for the same thing or-?

Ted: No, no, no, no not at all. Pinball machines were around, they had been around, they were going to be around, they were built by Bally and Midway and all these different people and Gottlieb. They were all making pinball machines

and we were not competing against pinball machines. All we wanted to do was develop a game that we could sell for under a thousand dollars and make some money at it. That's all we wanted to do. Actually, all we wanted was Bally to build it.

You know, that's what we wanted, but Bally kept not accepting the game, kept not accepting it. Nolan, and Al, and I were sitting around looking at each other, well what are we going to do? And I said, well as long as this thing is hanging out there, there's not much we can do. So I dictated a letter to Nolan for him to send to Bally saying, hey, we understand you're not real excited about the Pong game but … you know, we can't do anything, you know unless you reject it or accept it. So if you reject it, then we can start on a different game because we still owe you a game, you know, you paid us a lot of money. So, anyway, they wound up rejecting the game and I told Nolan just put that letter in a really, really safe place and forget Bally.

SoCal Mike: So there was a slim chance-

Ted: They didn't have the option of rejecting the game. That wasn't part of the contract.

Scott: So you just nicely gave them that.

Ted: So once they rejected the game, they shut down the contract.

Scott: Now, the Book of Nolan says that *he* brokered this deal. So you were the one that composed that letter?

Ted: I told him what to say. In fact, I spelled it out, you know word for word on how he should word it so that they think it's absolutely for sure that the only thing we want to do is design them another game.

You know that's what's really important. We had sent them … you know, we put the ten games

out on location and almost of all them did extremely well. A couple of them didn't do *real* well because of where they were located, but we put together an income report on those things and we looked at the numbers and I said there's no way Bally is going to believe those numbers. They had been in this business too long to believe those numbers. And, well what should we do? I said let's just cut them all by one third of what they actually are.

Scott: So you fudged the numbers the *other* way. (laughs)

Ted: Yes we fudged the numbers. We actually submitted one third.

"Well, what about this one that's not making very much money?"

I said one third, I say if you're going to tell a lie, you got to remember what lie you told.

(everyone laughs)

So I said we cut them all down to one third, we sent that report in. Bally still thought we cooked the numbers.

SoCal Mike: Wow.

Scott: Oh, if they only knew.

Ted: (laughs) Well, they found out eventually.

SoCal Mike: So, Pong was being developed or could have come out under the Bally name, not Atari? And it would have changed history.

Ted: Bally paid for that. They paid twenty four thousand dollars to us for that game.

SoCal Mike: But they rejected it then.

Ted: Yes.

SoCal Mike: So then did you guys do a second game for them or not?

Ted: No, no, no.

SoCal Mike: So the deal was done.

Ted: Yeah, once they rejected the game, and they didn't have an option of rejecting the game in the contract. That wasn't part of the contract. We were going to do a game for them, you know, and then it was their game.

SoCal Mike: Did they finance the game, did they finance it then? I mean, they gave you twenty five thousand dollars, right?

Ted: Yeah, yeah.

SoCal Mike: And then the deal crashed and I'm assuming you guys didn't owe that back to them because it was never written into the contract.

Ted: No, no, no they terminated the contract by rejecting the game.

SoCal Mike: Yeah, yeah. So, I mean, it kind of worked out in your favor, I guess, sort of.

UK Mike: It's a smart piece of business.

Ted: Now, the problem was what do we do now? See, we didn't have the money to go into production ourselves. There's no way we could have done that. So, Al and Nolan and I are sitting in Nolan's office and we're sitting there wondering what do we do now? And I said, either we produce it ourselves, we go into production, or we go home. And I don't want to go home.

Scott: Now that runs counter to The Book of Nolan that says Ted Dabney panicked and left the industry.

Ted: (laughs) Yup. Well, anyway, this is well before I left. This is before we actually even got started. Al was going over the numbers of how much this was going to cost, and this and that and everything, Nolan was saying we don't have the money, we can't do this and all like that. So, I said, wait

a minute, wait a minute, we're getting the cart before the horse. Let's make the decision of whether we want to go into business or whether we want to go home. We make that decision, once we make that decision, then we find out how to do it.

UK Mike: Was it really as clear cut as that: if it wasn't Bally it was never going to be anyone else? No Gottlieb, no Williams, no anyone else?

Ted: No, no, no, no none of those things were options. I don't know why they weren't. That was all kind of Nolan's thing.

SoCal Mike: Bally probably made you guys sign an agreement saying you wouldn't work with anybody else, I'm guessing.

UK Mike: Well what I was imagining is maybe someone going to Williams and saying, "Bally are interested in this game."

Ted: If Gottlieb or Midway knew that Bally paid for it, they wouldn't touch it. Anyway, none of us really wanted to go home, so our decision was to go into production. Well, I had enough money in the bank, of my own personal money, I could buy TV sets. So I told Al and Nolan I'll get the TV sets and the cabinets, and you get the PC boards and the ICs and that kind of stuff.

So, I found a distributor in San Francisco. I can't remember the name of the company - Sony? Or somebody. I wound up buying fifty monitors from him. Like I say, I used my own money for that. I called P. S. Albert, the cabinet manufacturer that manufactured cabinets for Nutting and I told Frank I needed some cabinets. I had given him a drawing of those twelve cabinets earlier on, but we didn't go with him, because I saved a couple of bucks by going with someone else. But he had the drawing.

So I said I'm going to need fifty of those cabinets. And I said "but I don't know if I'm ever going to be able to pay you."

He said, "you can pick them up in two weeks."

I said, "We don't have a truck."

He said, "I'll deliver it."

That was the whole conversation.

SoCal Mike: How much were TVs like that back in the day?

Ted: Oh, I'm trying to remember - about sixty dollars.

Scott: Now, Ted before we move on too far from Computer Space, there's a couple of questions … mysteries of Computer Space … fairly briefly I'd just love to sort of clear up with you.

The sound circuit and hyperspace. Those were sort of important game add-ons. Who concocted those?

Ted: Those were mine. Absolutely mine. I invented the sound circuit using noisy Zener diodes and the hyperspace one was, well, if you're going to win the game, how can you tell? And I said you just invert the video. So, we did.

Scott: The counters on the score go up and then, because of the way that a circuit like that displays the count, you wouldn't necessarily know that you've gone to the time or to the win, so that hyperspace was a big, important point of game play in signaling that this occurred.

Ted: Yeah, yeah, well I didn't know it at the time, I just figured well that's what we should do, we should do something, and we invert the video, that's easy enough to do. I mean, that's very easy to do. We just put in an inverter in the video line.

SoCal Mike: Now, do you get royalties from George Lucas every time the word hyperspace is used in Star Wars?

Ted: No I don't. No I don't. I'm afraid he just kind of usurped that all on his own.

Scott: (laughs) So the next Computer Space mystery there, Ted, the manual that surfaced for this thing, there's a troubleshooting guide, there's a schematic. The manual sort of seemed to come together in pieces over the years. Could you tell us who composed what portions of the manual for Computer Space?

Ted: No I can't, I have no idea.

Scott: Okay, so maybe some of your notes got in there, you're really not sure.

Ted: Yeah, I didn't have any notes on the game.

Scott: Okay, alright, because that was always a big question.

Ted: Yeah, yeah, Nolan actually had schematics but I think the manual came under Nutting because Nutting was still building Computer Spaces after we left.

Scott: Right, speaking of which and this is sort of the other big mystery - well, there are two. Who built, say, the first several Computer Spaces produced? Was that the Nutting personnel or you guys?

Ted: No, Nutting built them. Nutting built all the Computer Spaces.

Scott: So every one of those was assembled by them.

Ted: Yes, every one of them.

Scott: Okay because there are a lot of stories out there that you guys built the first ten or, you know, whatnot.

Ted: No, no, we built the first ten Pongs. Yeah, we didn't build any Computer Spaces at all.

Scott: Okay that rumor probably just got mixed up over the years.

Ted: Yeah, yeah, I'm sure it did. Remember, it's been forty years.

(everyone laughs)

Scott: Well, that's something kind of cool. Whenever people … I collect a lot of video games in my house, it's all pinballs and video games, and whenever people come over and … they'll look at Computer space and go, "What's that?" And I just love to tell them, "That is the first commercially produced coin-operated video game in history, 1971." Which sort of brings me to my next question; I guess sort of my last Computer Space question for the moment.

Ted:(laughs) until you think of another!

SoCal Mike: I've got a couple when Scott's done.

Scott: Okay well, there we go. In 1971, November 1971, Nutting went to market with Computer Space. In September of 1972, another company called For-Play, based out of Burbank, California, introduced a part-for-part copy of Computer Space. They called it Star Trek, are you familiar with this game, Ted?

Ted: Yup, I sure am.

Scott: Okay, so it was in a wooden cabinet, they sort of worked out the joystick issue and they didn't have the buttons like Computer Space. Now, one of the things that's sort of a mystery to me, is my Computer space is the fifth oldest one known to exist, serial number 9076. Now, there was a lot of copy protection done on that game. When I say copy protection, they took the time to sand the identification numbers off every IC. And then they painted the tops of the ICs with silver paint. So, if you're going to want to reverse-engineer this game, you're going to have to desolder every IC and sit there and figure out is it a quad-

NAND, is it an XOR, what is this thing?

Ted: Well, in the first place, the early games did not have the painted-over ICs. So I'm sure some of them got out without … I'm sure somebody got a hold of that. There was a guy named Stanley, down in southern California, that had seen that game and got absolutely bonkers over it. In fact offered Nolan a job that he almost took and I talked him out of it because if he took the job we were over, we were done.

Scott: Yeah, that would have been the end of that game.

Ted: Yeah, that would have been the end of that. So I talked him out of that, I said would you rather be a little fish in the big pond or a big fish in a little pond? And he says I'd rather be a big fish in a little pond. I said, okay listen, so don't take the job or you'll end up working for someone else. So anyway he didn't, he didn't end up taking the job. He moved on.

Scott: So how did For-Play … did you think they got a hold of one of the very early games before any of this, you know-

Ted: No, no, I don't think that. No, I don't think that. I don't have any opinion about how they got what they got but I know it was a direct copy. How they copied it I don't know.

I'm saying some of the first games got out without disguising some of the ICs.

Scott: Yeah because mine, like I says, the fifth oldest known serial number and its ICs were disguised, so it must have been early on, you know, after the first few games that they decided "Hey, we've got to do something-"

Ted: Or they paid somebody to steal the schematic. I don't know. I don't know how they got it, but they got it. They did the same thing with Pong.

Scott: Oh yeah, now For-Play, they had Sports Center, they had Rally, and Star Trek all of which were copies of early Syzygy, Nutting, Atari games.

Ted: Uh-huh. Well they probably had somebody planted in there that, you know, they both stole off them for them. You know, industrial espionage is certainly big business, it always has been.

SoCal Mike: Sure, back to Computer Space, or to keep on that, you know it was featured in Jaws and Soylent Green, the movies, right?

Ted: Yes, yes.

SoCal Mike: Were you approached by the –

Ted: No, no, no in fact, I had seen the movie Soylent Green, and I saw a Computer Space in there and it blew my mind and I told Nolan about it. I said you've got to go see the movie but I didn't tell him why. I said, you've got to go see the movie. It's a big movie. Go see the movie.

So he went to the movie, he said "What's the big deal?"

I said, "Did you see the movie?"

He said, "Yes."

I said, "Well, did you see the Computer Space?"

He said, Well, I came in a little late."

(everyone laughs)

So anyway, no, we didn't. We weren't consulted about that at all.

Scott: Speaking of movies, did you hear about Atari: The Movie that's going to be done next year?

Ted: I've been trying to get a hold of the producers of that because apparently Nolan has approved the script, and I know it's a pack of lies, and I've tried to let them know

that if they start to tell a bunch of lies, I'm going to get them.

SoCal Mike: Right.

Scott: Well as you should.

Ted: Yeah, absolutely, I mean, because … I'll sue them and Nolan, you know, because I've been sending them emails, I've been trying to make phone calls, I've got other people doing the same thing and, you know, if they're going to ignore me, they're going to pay for it.

Scott: That's all very serious business. I mean, if I were in your position, if I had, you know, been in on the ground floor, and knew the truth of this company that I helped build with my own two hands, I would get a piece of ass as well. I would absolutely go in there and, you know, that would happen. I would not go lightly on that. So we certainly-

Ted: No, if that movie comes out. But I've been talking to a few people and apparently … I didn't even know the movie was still going to be made.

In fact Nolan called me and told me that the people there wanted to talk to me, and that he would, you know, give them the information on me so they could contact me and I said fine. But they never contacted me. So I knew Nolan was lying. He always lies.

Scott: And that's unfortunate. I mean-

Ted: Yeah it really is because, I mean, like I told Nolan in an email just about a month ago, I said you're really a tremendous guy, you don't have to lie. I mean, the truth is pretty fantastic. You don't have to lie. Why do you do that? Because every time you lie, you diminish yourself.

Scott: It is. It would be like Steve Jobs lying about Wozniak's involvement in Apple, you know?

They're both special guys, you know?

Ted: Exactly.

Scott: What I would say to Nolan-

Ted: Well, I'm not talking about lying about my involvement. That's not what I was talking about. I'm just talking about lies.

You know, telling lies about how brilliant he is, you know. I mean, he convinced me, that he designed the circuitry … because I knew the matrix, that rocket ship matrix in Computer Space was a real complicated one. I mean, that was hard to do. And all of a sudden Nolan had us all saying "isn't that fantastic?" And for years and years and years, I had believed he had designed that. But I just found out, probably three months ago, that Al Alcorn or Steve Bristow did it.

Scott: And for our listeners, just to sort of explain what Ted's talking about, Computer Space … because they didn't … to build a ROM in those days … on our radio show, Ted, we just discussed ROMs and what they are, in one of our technical segments. In the day, to produce a masked ROM, to store all those video characters, would have been insanely expensive. You'd have to create the mask, etch the ICs, you have had to have a production house involved. They had to do this with relatively off-the-shelf parts, so what they did is they created the graphical images, the rocket and the spaceships, out of diodes an interface IC off-the-shelf, they basically built ROMs out of off-the-shelf parts. So it was an amazing circuit.

Ted: Yup, that's exactly what happened. In fact, when it got laid out, on the board it looks just like a rocket ship.

Scott: It does, which makes it very easy to repair.

Ted: (laughs) Yeah, you know which diode is doing what.

Scott: Oh yeah, and the thing is, when I restored my Computer Space it was … it's kind of like if you ever go back and get to work on a Model-T or … you know, like myself I love to build and restore vintage airplanes, so to go back and work on a World War I fighter, just start peeling back the layers and seeing the genius of how this thing came to be. Computer Space was by far, hands down, my favorite experience for restoring any classic video game.

Ted: Kind of like working on a five tube radio.

Scott: Yes! And I know what that is.

Ted: Yeah, there was another thing that Nolan said he invented and I just decided to program it on my computer and see what it's like and that's a game called 'Knock Out' or 'Break Out.' I don't know if you're familiar with that.

Scott: Oh, very familiar.

SoCal Mike: Yeah.

Ted: Well he said he invented that. There's no way he could have invented that! You know, all of a sudden I realized what's involved, keeping track of, you know, all these different things that you're hitting and that kind of thing, he couldn't have done that! So I know that somebody else designed that for him.

Scott: And I came to that same moment of realization myself as, like I said, I had always read from The Book of Nolan, and when I was restoring my Computer Space, I've read enough Nolan interviews, I've heard enough from Nolan, I've seen enough of Nolan, that I'm not saying I know what Nolan can and can't do but when you talk to people, and you get a feel for their engineering skills, you know what they do and don't do in a big picture. So as I was working on my Computer Space it became apparent to me Nolan Bushnell

didn't do all of this. So a lot of people come to that realization over time.

Ted: Yeah, no, there's no way he could have. I have no reason … I always believe him … you've got to remember I knew Nolan back when he had a junky little car, he owed money on his school, he could barely afford his rent … I knew him early on when he was a really neat guy. I mean, we played Go, we had fun, go around to pizza parlors, he'd tell me all about his brilliant ideas he had, so I knew him then. I had no reason to doubt he'd ever lie to me. Or to think that he would lie to me, but it turns out he did.

Scott: It's terrible because it doesn't need to be that way, that's why I'm glad we're getting your story on record.

Ted: Yeah, yeah, no the guy is brilliant! He's absolutely brilliant! He just doesn't happen to be a particularly good engineer. But his imagination and all the ideas that came around were his ideas.

Scott: Oh his robots, the robots he designed?

Ted: Yeah, okay I've got to tell you one about Androbot, you're heard of that company?

Scott: Androbot was exactly what I was referring to. We love Androbots in this group.

Ted: Okay, Androbot … that little thing was done in the Catalyst Group. And I had an office in the Catalyst Group and those guys were behind closed doors, designing this thing and, you know … Nolan was handing out budgets and budgets of money to these guys to do it.

Well one day, they had made a copy of the schematic on the Xerox machine. We had one extra-large size Xerox machine and they left a copy there and I had a look at the schematic and I said my God this is awful! I could tell by the

schematic. Or, no, it was the … it was not a schematic it was a layout, it was a PC board layout. And I could tell by this PC board layout that this thing is not going to work. It's just absolutely not going to work. And I told Nolan that, I said this isn't going to work. I says, you're going to get it working but it's going to fail, you know, within a week! Absolutely!

The thing that I noticed is he had a transistor over here, on one side of the board, then he had the base lead going all the way over to the other side of the board. You can't do that!

Scott: That's not how it's done. No!

Ted: You cannot do that with a transistor or it will oscillate like a pig!

Scott: You may as well put in a strip-line inductor in the middle.

Ted: Yeah! All you would need is a 2k resistor or a 200 ohm resistor in series with the base, that's all you would need and that'll fix it but there wasn't a resistor in series with the base. So, anyways, I told Nolan, I said it's not going to work, I tell you every one of them is going to fail and the thing is these guys didn't want anybody to see what they were doing, especially anybody who knew what they were doing. And so they kind of kyboshed that idea and Nolan said no, no … I said you've got to at least let me take a look at it. I said this is going to fail! It's not going to work. And he wouldn't believe me. I don't know if he didn't believe me or what or was just stubborn, but, sure enough, all those Androbots that they shipped, every one of them, failed.

SoCal Mike: Now what year was this?

Ted: It must have been around '80, '79, '80-

SoCal Mike: When was it considered that you and Nolan

kind of parted ways as far as the Atari days go?

Ted: That was in '73.

SoCal Mike: So even though you guys parted ways then, you still had a relationship.

Ted: Yeah, I mean, he did the Catalyst and I helped him out with that. We did Pizza Time and he asked me to help him out with that, and I said no, I'd rather be your friend than your partner, I said, I've done that.

Scott: But now you did do some work for that, as I understand, you built the order delivery system, order notification system?

Ted: Yeah, yeah, Nolan had asked me to go look at … if I wasn't going to come in with him and help him out with this thing, at least go take a look at his pizza parlor and tell him what I thought of it. He had one down there in … I don't remember where it was … San Jose or someplace … I almost remember the name of the shopping center but I can't. Anyway, it was down there on Steven's Creek, so I go down there and I take a look at it and came back with a report to Nolan and I said, "Look your pizza is no good, that place is dirty and I couldn't tell him what pizza I was ordering because it was too loud."

He said, "Okay, I'll take care of the dirty," he said, "but it's got to be noisy and mediocre pizza is good enough."

I said, "Wait a minute, Nolan, mediocre is not a standard you can have. If you have mediocre as a standard anything less is unacceptable."

"Oh, no, no, no, we're okay, we're okay."

Anyway, he said you take care of knowing when your pizza's ready and so I invented this number call out system, and I said look, I'll sell them to you but as long as I'm

selling them to you, I'm going to overcharge you, I'm going to charge you like Hell for them. I said, but if you ever want to build them, I'll give you the schematics, give you the parts, give you everything you need to build them yourself but as long as I'm building them in my garage, I'm going to charge you. He said, "Okay, that's fine."

So I did, I did charge him a lot of money. And I made a lot of money. It was going good, in fact, the people at Radeon get mad at me because I wasn't cashing my paycheck. We only got paid once a month, and they'd come around six months later and say hey you've got to cash your paycheck.

Scott: You know, I can totally identify with Ted here. When I was in the army, I was stationed in Germany and this was during the early '90's and there was a big industry in … and it was actually legal in Germany because of the copyright laws … in making duplicate satellite access cards for satellite TV. And I had engineered a card-writing system and I was selling these modified access cards so you would get all the channels for free, because you couldn't legally subscribe to it in Germany because it was England … it was a whole big ugly deal with them. So I was making so much money off of building these access card devices and selling that, that I would get my army paycheck and go, "Oh, isn't that cute?" and just throw it in the drawer.

(everyone laughs)

Ted: Yup, yup, yeah that was about the way it was.

Scott: So you actually had financial dealings with Nolan years after Atari?

Ted: Oh yeah, in fact I started a company called Syzygy Game Company because he wanted me to invent a game for him only, just for Pizza Time Theater. I said fine, so I got a hold of Isaac Asimov's person and got permission to use his name and created a game called Isaac Asimov Presents Super Quiz. It was very similar to Nutting's except it was done with, you know, more current stuff. And I was selling him that game.

Scott: So that was your work as well?

Ted: Huh? Yeah! Yeah, that was all my work, yes.

Scott: Well The Book of Nolan says otherwise. You know, here's the thing, a good friend of mine, long ago, he said something, I don't know where he got it from but it really stuck out, is that an honest man never lies. A pragmatic man never lies about something that is easily verified.

Ted: (laughs) Yup.

Scott: So, now, we sort of jumped ahead just a little bit to your future dealings with Nolan and all, but when it came to a close at Atari, when you realized … I don't know how to phrase it … what was the conversation around the Dabney dinner table when you decided not to go in the next day?

Ted: Well, it didn't actually happen that way. Nolan had hired this guy … you see Nolan had this idea success means money. Money means success. So if you have a lot of money, if you're earning a lot of money, you're successful. And that means you're really good at what you do. Which could well be. But the trouble is he hired this guy as the president of the company, he was an industrial psychologist … and, you know, he was rich so he made a lot of money so he must be really, really good so Nolan hired him.

Scott: So who was this fellow? What was his name?

Ted: I don't remember. Yeah, it was the first president that he hired … I guess Murichi? Mureech? I can't remember … a guy we had, he was brought in as a financial guy … I guess he quit or got fired or something but anyway, so Nolan hired this guy in and he's an absolute idiot when it came to business. I mean the only thing, the *only thing* he did all the time that I knew him is redesign his office. The only thing he did. You know? He redecorated his office.

When we were at the roller rink, this is what really tore it, when we were at the roller rink, you know about the roller rink?

Scott: No sir, explain that.

Ted: Oh! We started out in seventeen hundred square feet out at the Cole Complex in Santa Clara and when we started building Pongs, we needed more room, and it turned out that the guy next door to us had moved out in the middle of the night, he didn't pay his rent. So I cut a hole in the wall, and moved in to his place …

(everyone laughs)

Literally I cut a hole and moved in to his area and took over that seventeen hundred square feet. The manager came around and said "You can't do that!"
And Nolan said, "We did it! You just figure out how much it's going to cost us!"

(everyone laughs)

That was pretty good, that was fun. But anyway that was only thirty-four hundred square feet and that wasn't near enough but this ten thousand square foot-

Scott: I've just got this visual of Ted Dabney putting his foot on the wall after he's made the final cut and just unceremoniously taking it down.

Ted: I used the sabre saw. I put my foot on it.

Scott: Now, did you have a cigarette hanging out of the corner of your mouth while you did this?

Ted: Probably, I usually do! But anyway that wasn't big enough. But this roller rink down the block

became available, ten thousand square feet! So Nolan and I went in, you know, took over that one and, you know, gave up the Cole Complex. But … oh, no we didn't … that's right Nolan kept his office at the Cole Complex and my office was down near the roller rink.

Now I was down there in my office one time, and this guy comes in with this long hair, ponytail look about him and told him to give him my job description. I said, "What? I'll give you shit! Get out of my office!" And I kicked him out of my office.

I went to Nolan, I said, "What the hell is this guy doing coming around asking me for my job description?"

"Oh! Well, he's just trying to organize-"

I said, "Look, you hire some kind of general manager without even, you know, over this area where I am, without even telling me about it." I said, "That's not right."

"Oh well, it'll be okay … and then-"

So anyway, we ran out of room at that ten thousand square foot too and that was really bad. I mean we were just jam-packed and we had people on roller skates actually running around on the roller skate rink building Pongs.

So Nolan and I went out looking for another building and we found this building out in Los Gatos called the Cadre Building, Am Phenolcadre, and we said well let's just do that. And Nolan said oh no, we can't, we just can't justify moving out this far.

SoCal Mike: Let's just kick the door down and just move in!

(everyone laughs)

Scott: Ted, did you bring your hammer?

Ted: This was a real building, this wasn't just a partition, this was a huge ten thousand square foot building. And Nolan says, "We can't really justify moving out this far."

I said, "Nolan, Nolan. Look at me, we own the company, we don't have to justify anything to anybody!"

"Oh yeah."

Anyway, all the way back, to the office, we were coming back he was dead silent. Dead silent. We're driving into the parking lot at the roller rink, and he looks around and he says, "All these guys are depending on us, aren't they?"

I said, "Yeah. Not only them, their landlords, their grocery stores, everybody's depending on us."

He said, "What's it going to be like to be really, really rich?"

I said, "I hate to tell you this, Nolan, it's not going to be any different. The only thing that's going to change are the number of zeroes."

He didn't like that at all.

(everyone laughs)

Many years later, we're up at his house, drinking some … he had gone to France and bought a bunch of wine and got this really good deal on Gamay Beaujolais … actually, it's the French equivalent to Gamay Beaujolais. He got this really good deal on this older vintage. But he didn't realize the older vintages were worth less because they go bad. They're not like a claret or one of these other red wines that holds up, they go bad.

UK Mike: Beaujolais, you drink when it's brand new. There's actually a road race that they have every year so when a new crop comes out all the people in these big fast cars race to be the first one back to England with a bottle.

Ted: Oh, oh, okay. Well anyway, this wine was going bad, it was going bad pretty quick so I was over at his house drinking up this wine, as fast as we could, just getting plastered and he says, "Dabney, you know what I really, really hate about you?"

And I said, "What?"

He said, "You know what I really, really, really hate about you?"

I said, "What?"

He said, "Remember when you told me the only thing that was going to change is the number of zeroes?"

I said, "Yeah."

He said, "You want to know what I really, really hate about you?"

I said, "What?"

He said, "You had no right to know that."

(everyone laughs)

Scott: And he still can't pick a good wine!

Ted: Anyways, that was a fun story.

SoCal Mike: Ted, can you explain a little bit, and maybe we don't want to go into this or maybe we do, but I've always been curious about the whole Kee Games setup, did you have any say?

Ted: No, no I didn't have any say about anything, and this was after I left.

Nolan had this idea … if he set up a different … okay, I've got to back up a little bit because there's a bunch of stuff that goes on.

SoCal Mike: Okay good.

Ted: Remember he hired this president of the company that was a real yay-hoo, I mean a real yay-hoo, okay?

SoCal Mike: Yeah.

Ted: And we're over in the Cadre Building, he had gotten the Cadre Building, he also hired a vice president of engineering that he didn't know I knew but when I found out about it I told him that guy cannot – will not – make a decision! You know, he has a PhD mentality. A PhD mentality means no matter what decision you have, there's something wrong with it. So you don't make it.

And then he hired this salesman, a super salesman, a guy that was our salesman at Kramer Electronics, they hired him as vice president of marketing. So I says Nolan, you and I've got to go. So, we got on our motorcycles, headed over to a pizza parlor and we sat down and I says "You've got a president that can't do anything except decorate his own office, you've got a vice president engineer who can't make a decision, you've got a vice president of marketing who doesn't even know how to *spell* marketing."

I said, you've got to get rid of these guys, you've got to get rid of them."

He said, "Well what do I do? These are friends of mine."

"I don't give a damn if they're friends of yours, you've got a company to run and these guys are terrible!"

And he was blown away the fact I knew his vice president of engineering wouldn't make … couldn't make a decision. But he didn't realize I had worked with him for a while too (laughs) at AMPEX. So, I knew he couldn't make a decision.

But at any rate, in the meantime … Kee Games was set up so that Nolan could have a different manufacturer. See, in any given city, a manufacturer can only sell to one distributor. That's just the rules of the business.

But if you have two companies, then one can sell to one distributor and one can sell to the other distributor. Okay? But that's cheating if it's your company. So at any rate, I said what's the story? I was in my office over at the Cole Complex and he came in and said … I said, "What's the story?" So he told me, he says well this is just the way … why we set it up … and all like that.

Well, at any rate, when somebody asks me about it I told them what Nolan told me. Well it turned out Nolan had set me up so that the Board of Directors would get rid of me. In other words, I had told stories that I shouldn't have told and so they had decided they … you know, the Board of Directors had decided to get rid of me.

SoCal Mike: But when he explained that to you, he didn't tell you it was a secret or-

Ted: No, no. I said what is the story we're supposed to be telling about this and he told me. And so, that's what I warned people that asked me about it, that's what I tell them.

SoCal Mike: Oh, so that's what he told you to say, you said it, and then they canned you?

Ted: Yes, exactly.

SoCal Mike: Wow.

Ted: At any rate, that was the way that worked. And he told me that if I didn't quit, they would just transfer all the assets to a different company and leave me with nothing.

Scott: When this occurred The Book of Nolan says that part of the deal that you got was the game route that was originally owned by Syzygy, and that was sort of your parting prize. What was the real package, how did that occur?

Ted: No, no, I did get that. I did get that. But they were charging me so much money for rent on the building and the rent of the machines that I couldn't afford it.

Scott: So, it made no sense whatsoever to do that.

Ted: Yeah, I couldn't. I had three people working for me, now I couldn't even afford to even pay the rent and pay them and all that so I just told them honest, I said, you know, it's over. I can't do it.

Scott: So what was your path from there because obviously, like you said, it's 1980 … uh, '79, '80 … you were still having some involvement with the Catalyst Group and all, what did you do in that intervening time?

Ted: Oh, I don't know, I don't know what the intervening time was so-

Scott: Let's say from like when you left Atari, up until 1980?

Ted: Well, I was probably working on that … those coin operated games, running that for a while. All that's really kind of vague, I don't remember much about all of that. I don't even really remember how I got involved with Catalyst. I don't even know what I did, I had my office in Catalyst. You know, I'd get the paycheck from Catalyst …

SoCal Mike: Did Nolan ever, I mean, it seemed like he leaned on you a lot whenever there was kind of important decisions to make, even if you weren't officially in bed with him, if I can say that. So did you have … did he ever come to you when they were going through the whole Atari 2600 deal? Did he ever come to you and ask your opinion on anything or any help of you so …

Ted: No, no, no, that was all between him and Al.

SoCal Mike: Him and Al, okay.

Ted: Yeah, Al is a brilliant guy, absolutely brilliant.

Scott: Yeah, I've never heard anything from Al Alcorn that

contradicts himself. He seems to be pretty up-and-up. He doesn't always tell the whole story, I've heard him speak and not mention-

Ted: Yeah he won't, he won't say anything that is going to contradict somebody else.

Scott: Which is probably a smart business man.

Ted: Well I don't know how good a business man he is, but he's a damn nice guy.

Scott: Now are you still in touch with him or any of those guys from the old days?

Ted: No, no, no, not at all. No, I'm completely out of it - all of a sudden when Nolan said I didn't have a daughter on that Internet thing.

SoCal Mike: Yeah. That sucked you back in.

Ted: Well, yeah, that. See, someone had done a whole article on me, which was kind of nice, it was published in England.

SoCal Mike: Is it Leonard Herman?

Ted: Yeah, yeah, yeah. He did this article on me and UK Mike may have seen the magazine, called Edge.

UK Mike: Edge, yeah.

Ted: Yeah, it's in the April 2009 issue.

So, anyway, we had been in contact and so he let me know that Nolan said I didn't have a daughter. That's when everybody set up this for me and then I started getting all these calls from Curt and all these people. That's how I started getting involved again.

SoCal Mike: What do you think about all of us 'geeking out' over all of this history and everything, I mean, and what-

Ted: I think it's really bizarre because, you know, I'm not into video games at all. I look at this thing on AtariAge and these people go on and on about all the different things that Atari is doing. It's hard to comprehend how people can get so worked up over this stuff.

SoCal Mike: Yeah, yeah. But then, it was a job for you, just like we all have jobs and we don't think twice, you know, we don't think anything of it. But you were very fortunate, enough to be in California, I guess at the right place at the right time and-

Ted: 1:26.42

Oh yeah, yeah. I mean, Nolan Bushnell, hooking up with him and his ideas, I mean, just fantastic I knew how to make them work, he had the ideas and I knew how to make them work. It was a great combination.

UK Mike: If Bally had said yes we might not have been talking to you now even.

Ted: Yeah! (laughs) But you know, some people are okay with money and I'm just not one of those people. I started not liking myself very much; I was kind of an asshole. And I didn't like being an asshole and so having a lot of money didn't mean a whole lot to me. You know, I mean, it was fine, but -I don't know how to explain it. It's really kind of hard to explain.

Scott: You'd rather be true to yourself.

Ted: Yeah, I like having the money but I didn't like the way I was kind of acting like a jerk. I was kind of acting like I was important and it just didn't fit me. I don't know if that makes any sense at all.

Because, you know, most people are out to make a lot of money, that's what they want to do and that's why you do what you do is to make money. You take chances so you can make a lot of money. But,

I don't know … and we did! We did make a lot of money.

I had so much money, I was paying income tax like you couldn't believe. And I'd always get these letters from the IRS saying I owed them more money. This happened every time, every year, and you know, for years and years. They'd send me letters there saying I owed them more money and I'd send them a check.

And then, one year, they decided to do an audit. And they did this massive audit on me and wound up giving me back all of the taxes I paid, plus interest! And I remember at that time the interest was a phenomenal thing, during the Reagan times, there was a Hell of a lot of interest rates, and they always paid the highest interest rate and I got all this money back. And I was like, "Wow! This is fantastic!" I couldn't understand. I don't know why but, you know, the IRS guy said, "Hey, we could go back even further if you want." And I said "No, no, that's enough for me."

(everyone laughs)

Scott: Hey, you're playing Black Jack and no, we'll stay on these cards.

Ted: And then, but, here's the bad part, we'd have all this money so we'd take off to Hawaii, you know, spend all this money and have a good old time. It turns out, the next year, all the interest they paid me was taxable.

Scott: Ohhh!

UK Mike: You were just looking after their money for them.

Ted: And I wasn't prepared for that.

UK Mike: So, you didn't do all this for the money, and, you know, money didn't necessarily make you a nice person but, perhaps did you ever … in 19 I don't know 85, 86, ever walk into an arcade and think,

"I had a big hand in this," you know, starting this?

Ted: Well, I never said that, I mean I –

UK Mike: No, quietly, did you ever take pride in that and sort of think to yourself, you know, I was-

Ted: Oh yeah, oh no, no, no I take a lot of pride in my involvement with the Atari thing, I take a lot of pride in it. But, anybody that wants to ask me about it, I'll be glad to tell them.

Scott: And Ted, you were saying earlier about some of the Internet involvement you've had, and all. Have you ever seen a website called computerspacefan.com?

Ted: No.

Scott: Oh you should check this out. The fellow who runs this website is a class act. He is not political about Computer Space. He has the basic story as he honestly understands it to be the case. He hasn't talked to you, so he doesn't know some of the other details, but he's a really nice guy who means very well and he sort of shies away from some of the more contentious part of it and he just documents the game. So what he does is he tracks all the games by serial number.

Ted: Oh wow!

Scott: And he has the schematics on his website, sort of the history of the game, and if you want to visit computerspacefan.com and check it out, you will probably enjoy what you find there. And he and I have talked a fair amount, and it was kind of interesting to us-

Ted: What's his name?

Scott: Dan.

[*Editor's note: this is incorrect. It is Kevin Armstrong who is also a contributor to this magazine*]

And he and I were emailing back and forth a bit, and one thing that's interesting to us here is that some forty years later, almost, there are people all over this country who have a Computer Space that they have … sort of like a vintage car, or a vintage airplane, that they sought out, that they restored, that to them is a living piece of history in their own home. You know…

Ted: Oh wow.

Scott: You were talking about some of the people on AtariAge that discuss on and on and get very worked up about it, well most of those people are the kind of guys that actually own a Computer Space. There are a lot of people though who do seek out the parts, who share information on restoring them, and for us, this is sort of like the Wright Flyer of video games, you know? Interviewing you here is sort of like talking to Orville or Wilbur Wright, you know? It's very cool to me.

Ted: I'm not *that* old!

(everyone laughs)

Scott: I didn't say Glenn Curtis, but no, it's really cool to me to think that forty years later somebody might come back and say "hey look at that thing you did." I found one that's restored, it's in my living room, and it's really kind of cool to me.

Ted: Well the thing is you asked me what I thought of it and it just boggles my mind.

SoCal Mike: Now, so you don't have one, I take it?

Ted: The ego loves it, you know. No, I don't have one, no. The only video game I have is a solitaire game that I wrote in Visual Basic.

I did write Break Out, just to find out what it was like. And that works okay on my computer.

Scott: So, now that we have talked about the recentness of

your career of coming to the forefront and people finally understanding what actually did occur, and the true history of this Syzygy, Atari, and Computer Space … which, again, for us is sort of like the Model-T or the Wright Flyer, it was the thing that solidified the formula for the modern video game, what was your last involvement with that industry and what did you step in to, did you go back to engineering? Did you … now you mentioned you ran a grocery store.

Ted: My last involvement was that Syzygy Game Company that I started for Nolan. It supplied that Isaac Asimov Presents: Computer Quiz for Pizza Time.

That was kind of the end of everything because they wound up owing me a whole lot of money and they couldn't pay me because Pizza Time was going belly-up. That was my last involvement with it.

Scott: So Ted, your last involvement was the Isaac Asimov Presents, you were telling me though that at some point you ended up just saying I'm out of here and opening up a little country grocery store with your wife and all?

Ted: Oh that came much, much later. In the meantime I worked for Radeon Semiconductor, I worked for Teledyne Semiconductor, and we even worked for Fujitsu for a little while. One of the things … I wanted to learn a little bit more about ICs so I went to work for Radeon as an applications engineer and you learn a lot about ICs if you're an applications engineer. And I even worked for a company that made scanning electron microscopes. Stuff like that. But finally the company Teledyne Semiconductor, which was a nice company, I liked working for them, was bought by these people that were running the company and they changed it to Telcom and they were a bunch of yay-hoos and they just didn't know

what to do, they didn't know what marketing was, they had no idea. When you're an applications engineer, you're working in marketing and if you don't have a good marketing manager to tell you what to do, there's not much … you know, so I finally decided to Hell with it and that's when I quit. The wife and I moved to Crescent Mills and bought a grocery store.

Scott: Now, was that a refreshing change of pace for you to be out of the industry or was it or more work or how was it-

Ted: No, the refreshing thing was being in the Sierras instead of Silicon Valley, that was the refreshing thing. Being out there among all the poison oak and coyotes and all that kind of stuff.

Scott: So out of all this, I mean all of your history from AMPEX up until retiring to run a grocery store, who was the biggest yay-hoo you ever worked for, and what was the coolest person you ever knew in the industry?

Ted: I think the coolest person I ever knew in the industry was Al Alcorn. That's correct. I really liked him. As far as biggest yay-hoo was probably that guy that Nolan hired as president of Atari.

Scott: Oh the pony-tailed fellow?

UK Mike: The one with the nice office?

Ted: Oh, no he hired him as the general manager.

Scott: Oh, the redecorator. The interior decorator.

Ted: Yeah, there you go, that's the man. Industrial psychologist or whatever the Hell he was.

Scott: So, Ted, before we ask any final questions we have for you here.

Ted: Oh, oh I've got to finish up, remember when I told Nolan he'd have to get rid of these guys?

Scott: Yes.

Ted: He did, and that's when he brought in Joe Keenan.

Joe Keenan turned that company around and all of a sudden turned it into a real, real company, and that's where Kee Games came from, from Joe Keenan.

Nolan said he was out mowing his lawn and he went over and started talking to him.

Scott: That's about all we know - that's about all the story was.

Ted: Yeah, yeah, that's about what happened. He's told me that several times, so I've got no reason to-

SoCal Mike: Back to the arcade side of things again, and again maybe you didn't have anything to do with it because I know this was probably after you left but, then Nolan started Sente?

Ted: Uh yeah. Yeah I wasn't involved with that at all. You know where the name Sente came from?

SoCal Mike: Was that another Go term?

Ted: Yeah. See we had Hane, Sente, and Atari that we submitted to the Secretary of State when we got ready to incorporate. Because we tried to incorporate under Syzygy but somebody already had that.

So we submitted these three names to the Secretary of State. The Secretary Of State actually picked the Atari name.

SoCal Mike: So then did Nolan sell Sente to Bally? Because for a while there it was Bally Sente, I remember.

Ted: No idea. He sold Atari to Warner Communications.

Scott: He made a few dollars off that.

Ted: Nah, not much.

Scott: Wasn't it like 28 mill or so?

Ted: Wasn't quite that much.

Scott: Ah! Another thing. So Ted, I'm sure we have loads more questions for you, but we wanted to just give you the floor. Is there any story you want to tell, anything else you want to say, the podium is yours, is there anything you want to put down on record that we have missed?

Ted: I don't think so, I think we covered most all of it. It's been a real ego thing, for me and I don't mind telling you that. I really have enjoyed it but, no, I can't think of anything else I want to just dump out there. Other than I did want to let you know, Nolan took my advice when I told him to get rid of those people and that was one of the things that made Atari really work.

SoCal Mike: Yeah, well it seems like he took your advice a lot.

Ted: Yeah he did. He did but he'd never acknowledge that.

UK Mike: He took your advice but he also took the credit for it.

Ted: Yeah, yeah, oh yeah. Well he was the brilliant one. Oh, God, some of the things he said about me was really pathetic. You know, I had no digital skills? (laughs) He actually said that, that I had no digital skills.

Scott: Which is kind of funny because that's your forte-

Ted: No, no, my thing was analog.

Scott: No, I'm sorry, analog video but your involvement in Computer space - the analog video circuit on Computer Space is very simple. All it does is displays end result. As you describe your involvement with Computer Space, and how you would quantify-

Ted: Oh yeah, that's all digital, all digital. There's no analog in that at all, except in the TV set but we didn't design the TV set, we bought those.

Scott: Yeah, it is, it's just that. It's a digital system. To say that you have no digital skills, and the very circuits that you assisted him in building, designed, they were in fact, digital.

Ted: He doesn't acknowledge that I assisted him in building it! You know? See, so that's where it boiled down to. And I've got to tell you one other story. This is kind of fun.

Remember we bought TV sets, we didn't actually build our own. We'd turn them in to monitors, by pulling out the tuner or disconnecting the tuner.

Scott: Yeah, on mine the tuner is just disconnected at the RCA plug.

Ted: Yeah well some of them you could disconnect and some of them you had to unwire, some of them we actually pulled out and Nolan tried to sell them.
(everyone laughs)

Scott: Nolan's Discount Tuners!

Ted: I got a hold of this distributor, what was it, Toshiba, in Oakland. And I told them I want to buy TV sets. "Oh yeah, oh yeah, oh yeah, how many?"

I said, "About five hundred."

"Oh no! No, no! Too many! Too many! Too many!"

I said, "No, I need five hundred."
Oh man, that was funny. I remember one time I was over at the Hitachi distributor in San Francisco, and the TV set didn't come out. I had ordered I think about a hundred and fifty of them or something like that for the Pongs and they didn't come in so I called the guy and I said I didn't get them.

"I don't know, they're in a warehouse out in L.A.."

So I flew down to L.A. and apparently, apparently the truth of what he told me was that the ship had got hijacked. It turned out that was true, the ship had gotten hijacked. So I was down there in L.A., at their warehouse and I said what about these TVs? I saw this great pile of TV sets and they were a little bit more expensive, about seventy dollars apiece and I says I'll buy them, I'll buy the whole thing, all of them, I gave it to him right there, a check for twenty seven thousand dollars, and they got the guy who shipped the TV sets, and got the TV sets.

Many years later, they call me and tell me I never paid them I said, "I don't give a damn what you think." I says,

"I paid you, I gave you a check. You're going to have to prove I didn't pay you, you know, because I did."

By that time I was out of the whole thing anyway. But that was one of those cute ones.

Scott: How'd they even find you at that point?

Ted: I don't know, I don't know, other people found me that I didn't want to find me.

(everyone laughs)

Scott: The IRS?

Ted: Oh yeah, the IRS, I always told them what I wanted to.

Scott: They probably got your phone number off the check you wrote them.

Ted: Yeah, I don't know. I don't know how. But if they had the check, how could they say I didn't pay them?

Anyway, I have no idea. It might have been out of the phone book.

Anyway, that's about all I can think of, guys.

Scott: Well, sir, thank you very much. SoCal? UK? Anything?

SoCal Mike: Other than just thank you so much for your time, Ted, and like I said it was an honor talking with you and I'm sure that, you know, we're going to have tons and tons of listeners just go crazy and love to hear what you have to say.

Ted: Scott's got my phone number, he's got my email, any questions that come up like you'd like to get answered just give me a holler.

Scott: Oh, we'll take you up on that.

Ted: Okay. Mike and Mike and Scott I sure appreciate your interest in me, it's been a pleasure.

UK Mike: Well thank you.

Ted: My ego's just really, really happy right now.

(everyone laughs)

Anyway guys, thank you so much.

UK Mike: You're welcome.

Scott: Well, sir, let me throw one more log on the ego fire, if I mail you the control panel from my Computer Space, would you mind signing that for me?
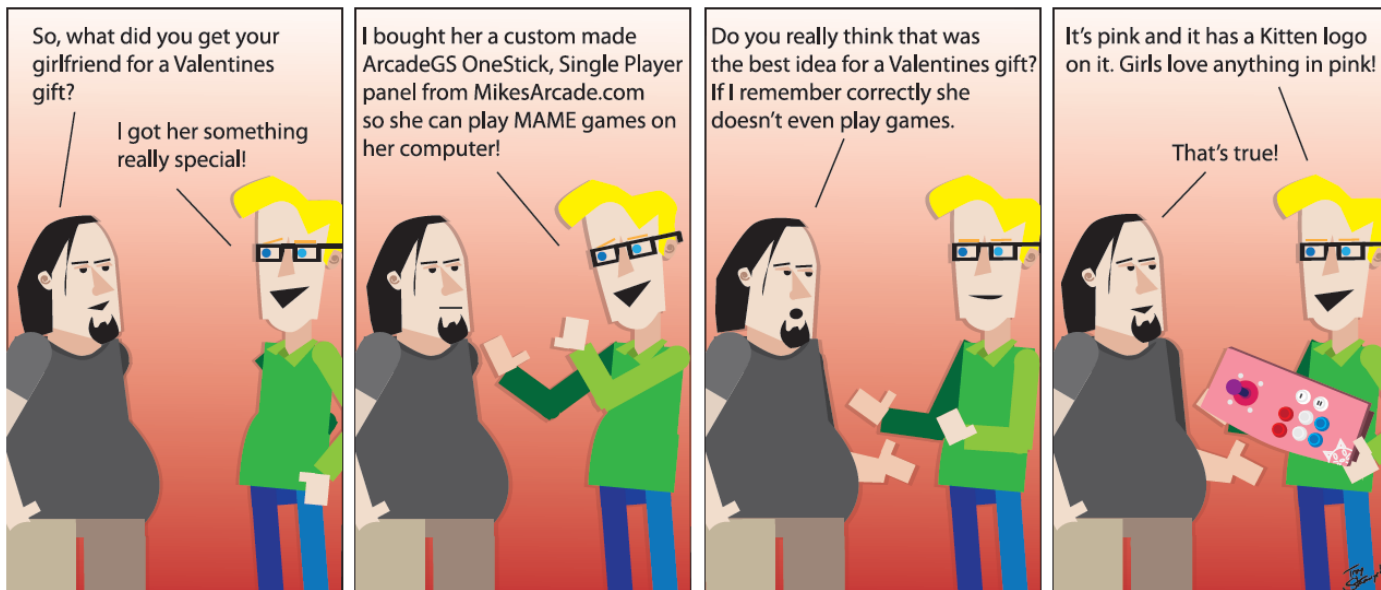
Ted: I sure will.

Scott: Let me get that done for you.

Ted: I sure will do that for you, absolutely.

Scott: Alright, Ted, thank you very much sir and we'll look forward to being in touch with you again.

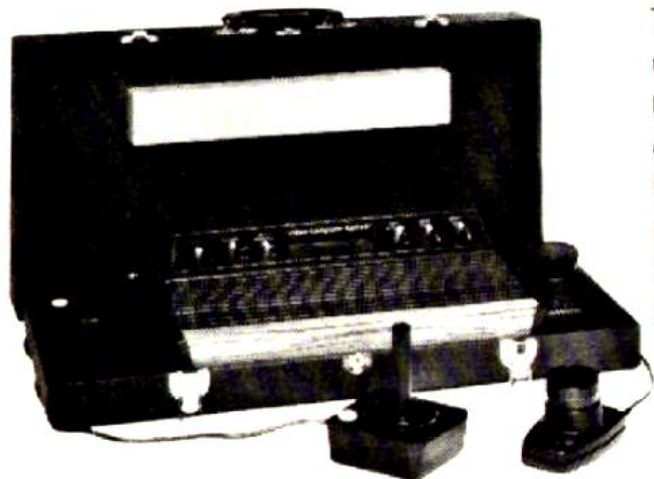**Ted:** Mike and Mike and Scott, SoCal and UK Mike, thank you very much. 🚶

Panel 1:
So, what did you get your girlfriend for a Valentines gift?

I got her something really special!

Panel 2:
I bought her a custom made ArcadeGS OneStick, Single Player panel from MikesArcade.com so she can play MAME games on her computer!

Panel 3:
Do you really think that was the best idea for a Valentines gift? If I remember correctly she doesn't even play games.

Panel 4:
It's pink and it has a Kitten logo on it. Girls love anything in pink!

That's true!