

quipment Poll

The following are rankings of the top videos and top pinballs making above average weekly gross collections nationwide. The dollar amounts appearing are the average weekly grosses as reported to Play Meter magazine through its regular national operator survey. These averages are for games that are currently being marketed in the U.S. (no older than six months). Games with less than adequate responses (less than fifty percent) but with above average collections are so noted. Games not appearing on the poll either (1) did not generate over a ten percent response rate to provide an adequate representative sampling or (2) did not register weekly gross collections above the national average. We encourage operators to join our evergrowing number of readers participating in the survey.

TOP VIDEOS

Arcade Locations

Fifteen of 26 videos (58%) with a response rate over ten percent have

National video average	Aug. 15 \$198
1. Zaxxon/Gremlin	\$253
* 2. Kangaroo/Atari	\$242
3. Turbo/Gremlin	\$238
4. Ms. Pac-Man/Midway	\$236
5. Robotron/Williams	\$231
6. Dig Dug/Atari	\$219
7. Galaga/Midway	\$209
8. Donkey Kong/Nintendo	\$207
9. Pac-Man/Midway	\$199

TOP VIDEOS Street Locations

Nine of 20 videos (45%) with a response rate over ten percent have above

National video average	Aug. 15 \$170
★ 1. Zaxxon/Gremlin	\$228
2. Galaga/Midway	\$226
3. Robotron/Williams	\$213
4. Ms. Pac-Man/Midway	\$211
5. Donkey Kong/Nintendo	\$201
* 6. Turbo/Gremlin	\$200
7. Dig Dug/Atari	\$184

TOP PINBALLS

Arcade & Street Locations

Four of 9 pinballs (44%) with a response rate over ten percent have above average earnings.

National pinball average	Aug. 15 \$122
★ 1. Orbitor 1/Stern	\$157
2. Caveman/Gottlieb	\$155
3. Mr. & Mrs. Pac-Man/Bally .	\$145
* 4. Devil's Dare/Gottlieb	\$125

★ Conditionally Rated— Weekly average based on less than 50% response rate



Provisionally Rated Videos

(Above average earning games, with a response rate between 10-25%)

Arcade Locations		Street Locations	
Provisional Ratings	Aug. 15	Provisional Ratings	Aug. 1
Wild Western/Taito	\$257	Looping/Venture Line	\$238
Reactor/Gottlieb	\$250	Tron/Midway	
Tron/Midway	\$243	Kangaroo/Atari	\$192
Victory/Exidy	\$217		
The Pit/Centuri	\$206		
Alnina Shi/Taita	\$205		

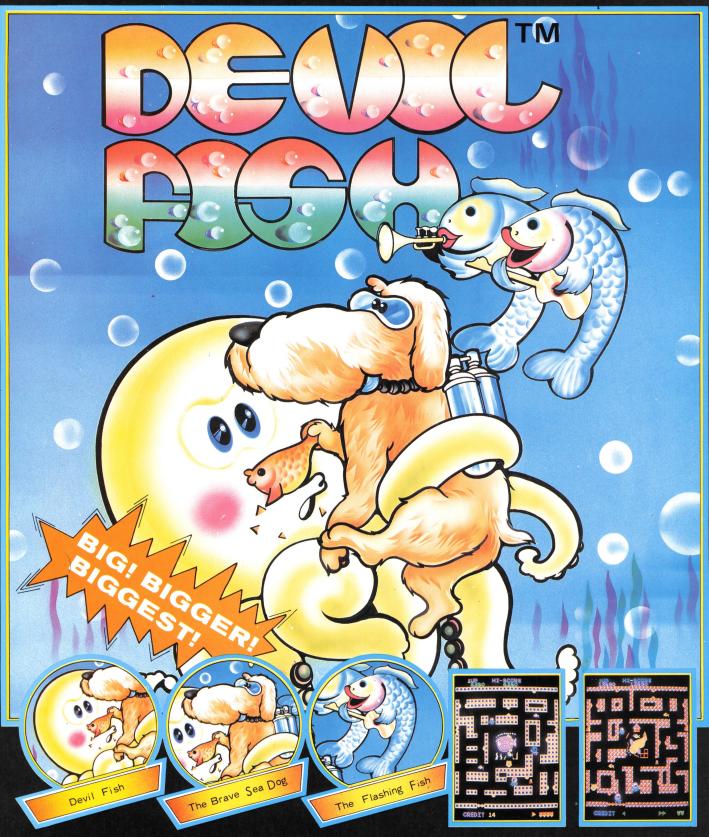
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PLAY METER, August 15, 1982. Volume 8, No. 16. Copyright 1982 by Skybird Publishing Company. Play Meter (ISSN 0162-1343) is published twice monthly on the 1st and 15th of the month. Publishing offices: 508 Live Oak St., Metairie, La. 70005; Mailing address: P.O. Box 24170, New Orleans 70184, U.S.A.; phone: 504/838-8025. For subscriptions: 504/837-7987. Subscription rates: U.S. and Canada—\$50; foreign: \$150, air mail only. Advertising rates are available on request. No part of this magazine may be reproduced without expressed permission. The editors are not responsible for unsolicited manuscripts. Secondclass postage paid at Metairie, La. 70002 and additional mailing offices. Postmaster: Send Form 3579 to PLAY METER, P.O. Box 24170, New Orleans, La. 70184.

European Office: PLAY METER "Harescombe Promotions. Watford Road, Northwood Middx. England, Northwood 29244.

Volume 8, Number 16/August 15, 1982

PLAY ME

The Twice Monthly Publication for the Coin Operated Entertainment Industry

BPA Circulation Audit applied for

FEATURES

Home Sweet Home

Roger Sharpe visited the Consumer Electronics show in Chicago and gives us his observation on the show and how it affects the coin-op industry.

Software Survival Kit

Here's everything you ever wanted to know about the sophisticated world of software but were afraid to ask. Mike Shaw helps you understand the computer world and also gives you a handy spec sheet on several software systems.

Pac-Man Syndrome

Randy Fromm couldn't miss him at the World's Fair. He was everywhere! Who? Pac-Man, of course. Here's an amusing story with many pictures of Pac-Man himself.

Stars at the Fair

Video games are some of the biggest entertainers at the World's Fair, and Video Expo runs the five game rooms on the Fair grounds. Mike Shaw tells us about the people behind the game room operation. On page 54, he also writes of the world's largest game room in Knoxville, Tenn.

DEPARTMENTS

- 4 Equipment Poll
- **Up Front**
- Letters to the Editor 11
- 14 **Puzzle Answers**
- 19 News
- Critic's Corner
- 73 Frank's Cranks
- 75 Our 'Cades
- 76 Tax Tips
- 77 **Technical Topics**
- 79 **New Products**
- 80 Aids to the Trade
- 82 Classified
- 96 Last Word

Cover Credit: "The 1982 World's Fair Official Guidebook"

UP FRONT

GUEST EDITORIAL

A lesson in economics

By Louis Boasberg

ou can study economics at all the great universities— Harvard, Yale, Princeton, Oxford. You can read the writings of all the great economists such as Adam Smith, Malthus, Karl Marx, Engles, Keynes, and yet all of this knowledge will avail you nothing if you are in the coin machine business, as in this business there is only one law of economics and that is "SUPPLY AND DEMAND."

When there is overproduction in the coin machine business, the Four Horsemen of the Apocalypse—Death, Pestilence, Famine, and War—ride over the entire industry, leaving havoc in their wake.

Once upon a time when most of the coin machine factories were privately owned, production was controlled to a great extent. Everyone remembers how Dave Gottlieb and Company took great pride in the fact that they *always* cut production when there was still a demand for the current game. Soon other factories saw the wisdom of Gottlieb's method and followed suit, so there was always a healthy trade-in or resale market.

But today, with all the great corporations and conglomorates controlling the business and turning out games like mad, with dozens of smaller factories struggling to get that one winner, all of this together with foreign copies from the Philippines, Taiwan, Korea, Timbuktu, Bornea, and points east and west, everyone has games new

and used in such quantities that their warehouses are bursting at the seams. There is no inflation in the coin machine business at this time. In fact there is acute deflation, as you can practically name your price on some real good games.

I don't know what the final solution of the problem will be. It could be an atomic bomb. It could be a great bonfire with everybody contributing his "losers" to the conflagration. But then, on a more realistic note, I believe in the next year sanity will return to the industry. There will be a great shakeup. The amateur manufacturers, distributors, and especially the operators will have to fall by the wayside. Game rooms and arcades will close by the thousands, not because of ordinances and laws, but for sheer lack of business, due to having more arcades and game rooms than they have players.

As with most lines of endeavor, only the hardest workers, the pros, the smartest, the people with solid financial backgrounds—only these will survive and like the meek, will inherit the earth. I believe in time the Crash of '82 will be as famous as the Crash of '29.

This is a wonderful and ingenious industry. It was born and prospered during the greatest depression in history. There are some great men in the industry, and I can't see too many of these men selling apples and oranges on the streets as was the case in '29, '30, and '31.

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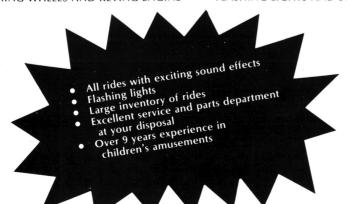
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'Threatening' letter

We are the owners of more than 70 *Pac-Man* and *Ms. Pac-Man* video games purchased from authorized Midway Distributors.

A letter to one of our locations concerns us very much. Due to its threatening nature and the fact that, although unproved, illegal action by us is implied (by Midway). We feel that this is a gross defamation of character.

We are also displeased that this action had to be taken with our location as a third party.

Question: Why did Midway notify the location instead of the owner of the game, whose name is clearly visible on the marquee of the game?

Question: Why has Stanley Jarocki refused to return our calls, since we are most concerned about this problem?

Question: Why does Midway spend money to deter its customers, the operators, from making money or increasing their profit on games purchased from them?

Example #1—Bringing copyright infringement suits against speed-up kits.

Example #2—Distributing at no charge patterns for players to beat *Pac-Man*.

Question: Would Midway bring suit against someone for painting the Pac-Man cabinet red?

Question: Who owns this game anyway? (or would you like to see the Bill of Sale?)

Sam Westgate Operations Manager Williams Enterprises, Inc. Enfield, Illinois

[Ed. Note: Here is a response from Stanley Jarocki, vice president of marketing for Midway Mfg. Co.]

As a preface, we would like to note that apparently our warning letter was received by Mr. Westgate in connection with Bally Midway's comprehensive enforcement program against parties dealing in video



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games which infringe our company's rights in Pac-Man and Ms. Pac-Man. This program is now being carried out on a relatively large scale because of the large numbers of unlawful copies of these games which are found at various locations throughout the United States.

In response to his questions as to why Midway notified the location instead of the owner of the game, the answer is simply that no doubt only the location information was supplied to Midway. Midway receives information as to the location of the infringing games from various sources and such information may not be as complete as we would desire. Consequently, in these circumstances, Midway merely sends out a warning letter to such a location to put everyone concerned with the game on notice of our position.

With respect to the charge that we refuse to return calls, that is not the case. I attempt to return most of the calls which I receive, but in performing my job as vice president of marketing, I just do not find time to return all calls and there may also be some calls and messages which I never receive since I do quite a bit of traveling and am thus away from the office frequently.

With respect to why Midway is spending a great deal of money to bring copyright infringement suits in which some of the games merely involve speed-up kits, the answer is that Midway is attempting to establish that such speed-up or enhancement kits must be under the lawful control of the owner of the copyright in the video game. Some speed-up kits can detrimentally affect the performance of the game as well as seriously injure the reputation of the game manufacturer and designer. We do not intend to deter operations from making money or increasing their profit on games purchased from Bally Midway, but they are also not free to use any speed-up or enhancement kit on their games.

With respect to the claim that Bally Midway distributes at no charge patterns for players to beat *Pac-Man* that is simply not true. We are presently in litigation with the authors of the book called "How to Win at Pac-Man" published by Gulf and Western Corporation. The suit is pending in the United States District Court in Chicago and Bally has filed a motion to enjoin the sale of this book. The matter is still being considered by the court and has not yet been decided.

As to your question as to who owns the game, we have to say that when an operator purchases the game, he only purchases the physical item. He does not purchase the copyright in that game, and thus, his use of the game is limited by the copyright laws as well as by the trademark laws. This also occurs in connection with all copyrighted materials thus, for example, while one can buy a book at a bookstore, he owns that book, but he cannot make and sell copies of that book without infringing the rights of the copyright owner. Likewise, a person may purchase a motion picture as a reel of film or a video tape, but that does not give that person the right to make changes in that motion picture and publicly perform it. Since the audio visual work in the video game is a similar copyrighted work to a motion picture, it is also subject to similar restrictions. Additionally, if a person purchased a Midway game and placed it out on location, but defaced or altered the game in some manner so as to lead people to believe that that was the way the game was manufactured by Midway, that too, we believe, would infringe our rights because it would damage our reputation as a game manufacturer.

Stanley W. Jarocki Vice President/Marketing Midway Mfg. Co. Franklin Park, Illinois

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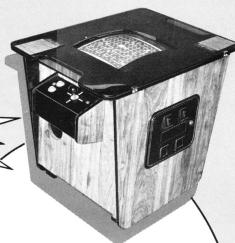
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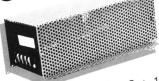
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PUZZLE ANSWERS

An "Upright" Fellow

(Play Meter, August 1, 1982)

Fill in the names of the appropriate games in the space below, then check the center row of vertical boxes to see who our nomination for the most upright fellow in the industry is.

CLUES

- 1. Centuri's driving game is in the maze city of ______
- 2. The U.S. has its Space Shuttle, and Taito has its ________ (2 words).
- 3. E.G. Marshall in the old TV show, or the popular Williams video.
- 4. The only name to appear on both video and pingame. (2 words)
- 5. Centuri's space video named after star cluster.
- 6. Atari's recent video that revived some of the elements of *Pong*, but with a medieval theme.
- 8. Taito's video makes you wonder what happened to colonies 1 through 6. (2 words)
- 9. Centuri's _____ has landed.
- 10. Gremlin/Sega first came out with Astro Fighter, and then with the similar-sounding ______ (2 words)
- 11. Gottlieb's first video. (3 words)
- 12. This Cinematronics game brought new meaning to the phrase, "Castles in the air." (2 words)
- 13. This new Atari video is 100 feet long.

- 14. You can do it to eggs, and to Stern's video.
- 15. Midway's successful entry into the "cute" game market.
- 16. The human fly would love this game by Nichibutsu.
- 17. Name this Stern video, and we will be close to ______ (2 words)
- 18. Cinematronics takes us back to World War II in ______

ANSWERS

The "Upright" Fellow 1 T A R G 2 M O O N S H U T T L E 3 D E F E N D E R 4 S P A C E I N V A D E R S 5 | P | L | E | I | A | D | E | S | 6 W A R L O R D S 7 C H E E K Y M O U S E 8 C O L O N Y 7 9 E A G L E 10 A S T R O B L A S T E R 11 N O M A N S L A N D 12 S T A R C A S T L E 13 C E N T I P E D E 14 S C R A M B L E 15 P A C M A N 16 C R A Z Y C L I M B E R 17 T H E E N D

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OUR CADES By Bill Kurtz

Troublemakers?

Use sugar instead of vinegar

t's Saturday night, about 10:30, and four teenage boys wander into your arcade.

After looking over your machines, they head for your *Tempest* game. One of the two boys playing the game swears out loud and kicks the machine when he plays badly. Another leans back against the nearby *Frogger* game, bumping into the players there. The fourth is sitting on top of your *Black Hole* pinball. They're all smoking.

You have your eye on them and want to do something to prevent trouble before they disrupt your arcade.

You could do what operator Bruce Kawut would do to get their attention and point out the posted rules. He would walk up to one of the boys, probably the one leaning on the *Frogger* game, call him aside, and give him a dime.

"I'd tell him to use the dime to call me, and let me know how his friend sitting on the pinball machine is doing after a nurse is done picking the glass out of him after he breaks through the pinball glass," said Kawut, who owns 10 arcades in New York, New Jersey, and Florida.

Kawut said he uses a humorous approach with players who violate the

posted arcade rules, instead of coming on hard and strong.

"If a kid is kicking a machine, I'll ask him what his mother or father would say if he kicked the furniture at home. Or if players are smoking in a carpeted arcade, I'll tell them that the carpeting is flammable, even if it isn't," Kawut said. "You can accomplish a lot more with sugar than with vinegar."

He said that most problems are straightened out just by talking to the players, although in some cases, he's had to ban customers for a few days or a week.

"A teenager doesn't want to be banned from an arcade because his friends are still there and it's embarrasing for him. But most people abide by the rules," Kawut said.

A uniformed policeman quietly walking around your arcade also acts as a deterrent for would-be troublemakers, letting them know that rowdiness won't be tolerated.

Harvey Sussel, owner of Wunderland game room in Cleveland, said he has special uniformed policemen working in the arcade on busy nights—Thursday, Friday, and Saturday.

And some arcades employ plainclothes policemen who spend the day playing the

games while blending in with the crowd. These officers can give a quiet warning to an abusive player without the player even knowing that he was talking to a policeman.

"You can't antagonize the players. You have to have a firm attitude and talk to them nicely and politely, but without blasting it around that there's a problem if someone's breaking the rules," Sussel said. "ninety-nine out of 100 times they'll leave with no problem."

Sussel added that about 25 percent of the behavior problems involved girls, who receive the same treatment as boys.

Sussel said he also prevents potential problems by not allowing troublemakers to ever return to his arcade—not just banning them temporarily.

"We know who the people are that have been causing problems, and we turn them away at the door," he said.

The best behavior control plan for any arcade seems to be preventive action—posted rules and a uniformed policeman keeping an eye on the players. But if problems still occur—and they probably will—be firm but not too overbearing unless you absolutely have to. Use a carrot instead of a stick.

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TAX TIPS By Irving L. Blackman

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Porrowing money is one of the pillars of the American way of doing business. A business often collaterizes a loan with particular assets such as real estate, equipment, or inventory. Sometimes the collateral is more indirect—like the general assets of the company, its profitability, and the integrity of management.

The smaller the business, the more important the "integrity of management" means one driving force—the entrepreneur. He is the person the lender is really looking to as the moving force through

which the business will find a way to repay the loan plus the interest. What happens if he dies?

To protect against the possibility that the death of the entrepreneur means non-payment of all or a portion of the loan, many lenders insist on life insurance. The concept is simple and logical—in case the entrepreneur dies, the life insurance proceeds will be used to pay all or a portion of the outstanding debt. Logic dictates that the premiums for such a policy are deductible as a business expense. Right?

Wrong. In a recent case, the court held

that premiums paid on a life insurance policy to secure a business debt are not deductible. The court gave this as the reason: if the owner lives and pays the debt, the policy will become a personal asset. If a corporation owns the policy, the same reasoning would apply because after the debt is paid, the policy will be a general asset of the corporation. (See *Ragan v. Comm.* TC Memo 1980-94.)

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FRANK'S CRANKS By Frank Seninsky

Unearthing 'Dig Dug'

n all fairness to Atari, it seems that maybe in my June 15 review, I over"dug" Dig Dug. After reading the article, Jerry Lichae, mechanical design supervisor at Atari, called to set the record straight. Some of the minor deficiencies that I focused on shouldn't have been blamed on Atari.

The first has to do with the "missing slam switch" on the inside of the coin door. Atari has always used a slam switch on its games, but Dig Dug had to be the exception. The reason for not utilizing a slam switch was simply that Dig Dug is a licensed game that wasn't designed to use a slam switch. Since Atari didn't design Dig Dug, it's not its fault that this circuit wasn't incorporated. In this case, I'd have to agree.

The second deficiency was the "missing key hook." Lichac explained to me that key hooks usually don't come with the new over-under doors, but Atari has cut two key slots in the sides of the small operator control bracket. The operator control bracket is located just inside the coin door and contains, depending on the game, a volume control pot, service switch, and credit switch. The back door keys will fit securely into these slots.

Atari fully intended that these slots be used as key holders only it forgot to state this new feature in its manual. It sure got past me. Now that we know it's there, I'm sure we'll all put the keys there. In this case, Atari shouldn't get any flack.

It also should be pointed out that there is much confusion as to who makes the new over-under coin doors. Atari can buy from any of three companies that make almost identical coin doors. Coin Controls Limited of England and Coin Controls Inc. of Chicago are really the same company.

To make life easier, I'll call them Coin Controls. There is also Coin Acceptors Co. of St. Louis, which I refer to as Coin Co.

Different doors

Since they all make over-under doors, and most manufacturers are now using this industry standard, we should know that the doors are different. The only way that I

can distinguish them, unless I have the two different products in front of me, is to note that Coin Co. uses amber buttons for its coin return buttons, and both Coin Control doors come with red buttons.

Just because it's rumored that these companies are at odds with each other regarding just who owns the rights to the over-under door, it's no reason for there to be any confusion among us operators.

Atari has gone through great pains to design a special coin circuit that scans the coin switch closing and times it precisely.

The third area concerned Atari's discontinuance of the two safety interlock switches earlier used on the back door and the coin door. When the door was opened, the 110 volt AC would be interrupted. These switches were primarily used as a safety feature to protect those unknowing who could put their hands into an open door, either front or back.

Atari felt that the power should be shut off to the game when a collector was taking a coin box out of the coin door. Many other manufacturers felt the same. This makes sense but with the over-under door system, the collector can just open the bottom door to make a collection and never come in contact with anything electrical.

Also since Atari games are UL Approved, it is no longer necessary for the company to use these interlock switches. Most operators turned the switches down or tied the wires together, defeating the purpose of the switches. So I must agree that they aren't

really necessary on Dig Dug.

Kick test explanation

The last area that requires an explanation is the Coin Door Kick Test. Atari has gone through great pains to design a special coin circuit that scans the coin switch closing (The coin switches are normally open and have an extra wide gap between the contacts.) and times it precisely.

According to specifications, it should be very difficult to vibrate these contacts hard enough and with exact timing to put a credit up. However, if another area of the game circuitry is bad, it could possibly affect the coin switch scan features. Trying the Kick Test on various games did indeed prove that it is almost impossible to put up free credits when all other areas of the game are operating correctly.

Fred McCord, of Atari field service, recently sent out a service bulletin regarding the elimination of any static related problems on *Dig Dug*. To prevent these problems, solder a .luf capacitor between pins 5 and 7 of the 74128 (7400 series NOR BUFFER) located in position A/B-3 on the logic board. This is not a serious problem now that it's summertime (little static electricity) but may become a nuisance if not done by November.

I hope this clarifies the *Dig Dug* review, and I'm glad that Atari is concerned enough to take the time to let us know they consider the operator when making design changes and improvements.

Service tips

Tempest monitors

The color XY monitor in *Tempest* can be a nightmare until a few simple facts are understood. The symptom is no picture, but the rest of the game plays.

There are two transistors on the monitor (Q103, 2N3792 and Q102, 2N3716) that can blow when there is a RAM lockup in the vector generator section on the logic board. The circuit gets overloaded and either these two transistors will blow along with the two 5-amp slow blo fuses or the



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two 5-amp slow blo fuses can blow.

I've seen occasions where only the fuses go, and when replaced, the game works fine (for a while). To further complicate matters, there is another pair of transistors in the monitor (Q705, 2N3716 and Q706, 2N3792), similar to the first two, that are also fused with two fuses, and that will blow under certain conditions when the first set of transistors goes.

The worst case is when all four fuses and all four transistors on the monitor are shot. There are probably defective RAMS that can lockup.

Atari has made a special "input protection circuit" that goes onto the monitor. Not many people know about it, and there aren't many available. The protection circuit is on a board that measures about 1½ inches by 3 inches.

When the RAMS lockup, the voltage level that the monitor receives rises above the normal 12 volts DC. The protection circuit will sense when the level reaches 15 volts DC and quickly bring it down to 0 volts, which will completely shut down the picture. The level will stay at zero until the game is turned off and turned on again.

This will give the circuit a chance to cool down and perhaps save a service call. You should wait about half an hour before resetting the game. At least all the transistors won't burn up. The monitors in *Space Duel* have this protection circuit installed.

One word of caution. If the 5-amp slow blo fuses go in the monitor, don't over-fuse with a higher amp fuse. This will surely cook the circuit if and when the RAMs lockup again.

If you have a shaky picture on *Tempest*, it may be corrected by changing both C901 and C902 (100 uf, 35 volt) capacitors, located in the high-voltage section of the Wells Gardner monitor, to ones rated at 100 uf at 50 volts. The higher rated capacitors will not be affected if the voltage slides upward slightly past 35 volts, as it sometimes can under lockup conditions.

Frogger

I've found out, the hard way, that there are at least four different manufacturers of *Frogger* boards in Frogger games, and they are not interchangeable. Some have different harnessing requirements and different sinc signal circuits.

If you have just inserted a known good (that's what all the boards received from a manufacturer or distributor are labeled) and you get an improper picture, it may just be that your game requires a different make of *Frogger* board. If that isn't confusing, what is?

Now that I've totally confused you, let me say that some of this information came from Frank Graybill, service technician at Betson Enterprises, Moonachie, New Jersey. Next time I'll find out how to distinguish between the different boards and try to un-confuse you.







STERN-SEEBURG ENTERTAINMENT GUIDE • VOLUME ONE • ISSUE ONE

N IN-DEPTH LOOK INTO THE AD-VENTURES AND WONDERS THAT SURROUND ONE OF HISTORY'S

GREAT MYSTERIES AND ONE OF TODAY'S GREAT VIDEO CHALLENGES.

Mike Rochip: Mr.

Tutankham, the Stern-Seeburg Entertainment Guide appreciates this exclusive interview.

Tutankham: Please, call me Tut, Michael.

Thank you, call me Mike. *Very clever, "Mike-Ro-Chip.*"

I guess. But tell me about your new Stern-Seeburg project.

I was on tour. Just lying around museums throughout the country. After returning home for a rest, Gary Stern showed up one day at the pyramid. Wanted to cut a deal. He said something was created

just for me and wondered if I was 'game.'

Go on.

Well, Stern said, "If you're up to all the excitement, I can make you a real star. A video game has been named and made just for you."

How does it work?

The object of the game is to find hidden treasure deep in the pyramid. A person needs something called a quarter to play. Many of these quarters in the machine move me throughout a maze. I try to pick up keys (one at a time, I might add) to open the doors to hidden treasures,

while evading a bunch of

enemies who are shooting at me. I see what Gary means about excitement. I'll tell you though, Stern has given me a unique opportunity. There are these time warps. I can get into a little chamber and escape enemies by being advanced up or down in a straight line into a new tunnel. Takes the heat off, know what I mean?

Yeah. Any bonuses for the player?

Sure. Various bonuses in tunnels here and there.

Listen Tut, sounds tough. What if you're surrounded by enemies?

O.K. There's a flash button and a player can save me by pressing it and destroying all enemies at once. There's one in each of the 4 levels.

Um, anything else?

Each stage is time controlled; the faster the stage is completed, the greater the bonus score. If the time runs out, the player can't fire and that's the

can t fire and that's the ball game.



Thank you, Tut. When this project is finished what are your plans?

Probably go home to my Mummy...

TUT! HE'LL GIVE YOU A PYRAMID OF QUARTERS.

The left joystick moves Tut in four directions to pick up treasures for bonus points and to search for additional keys which open vaults. A map at the top of the screen shows the player where the keys and vault doors are located allowing further entry into the pyramid. The right joystick operates the power beam destroying asps (20 points), vultures (40 points) and bats (60 points). Tut only fires left or right, so players beware! If needed, the flash button

may be used to destroy all enemies at once.

Tut features Stern's new slimmer and more compact cabinet which positions the screen at a more advantageous angle for player visibility. The cabinet also features a pullout drawer for easy frontal access to the logic boards.



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E By Mike Shaw

FBI IN GRAY ARENA • AGMA, ITC MOVE AGAINST INFRINGERS • COUNCIL DOES ABOUT-FACE • JAPANESE NIX "GRAY AREAS" • TENNESSEE "BINGOS" ORDERED OUT • INSTITUTE WILL FIGHT FOR OPS • CTA SUED, SUING BACK • SHOE IS ON OTHER FOOT • SOMEWHERE, A PLACE FOR THEM • 'PAC-MAN' GOES 'MAD' • COPYRIGHTS BACKED IN ENGLAND • ST. LOUIS OPS PROPOSED BILL • PEPPER II MODIFIED • DACONO TESTS YOUNGSTERS RIGHTS • SEGA HAS COPIES CONFISCATED • CHUCK E. CHEESE MEETS THE MAYOR

FBI IN GRAY ARENA

The FBI and the Jefferson County Police Department combined efforts to nail three electronic video card game operators in Louisville, Ky., Play Meter has learned.

Luther. James of James Vending Co., James Litsey, and Charles Klotter were all convicted of conducting illegal gambling businesses. The trials were conducted



under federal statutes, and the convictions are the first meted out under federal law. As such, the plaintiff in all cases was the United States of America.

James's conviction came down first, and subsequently Litsey and Klotter pled guilty in their cases. James is currently pursuing an appeal. Alexander Taft, U.S. attorney in Louisville, said the defendants were found guilty of all three counts listed as violations in the federal statute—five or more people were involved, it was a continuous operation of more than 30 days, and the defendants owned all or part of the operation.

Taft stressed that the machines themselves as they were shipped from the factory were not found to be *per se* illegal gambling devices, but "they are designed for easy modifications" that renders their use illegal.

At the outset of the investigation, Taft said, county police and the FBI visited locations where the games were known to be active. They played the games and were paid in cash for any winnings they accrued. The payoffs constituted what was essentially utilized to determine that the games were being used as gambling devices.

In addition to the FBI's investigation work, it also furnished an expert witness who determined that the devices were being used in contradiction to federal gambling laws.

"The convictions were easy to determine," noted Taft. "What was difficult was trying to pin down who to convict."

Taft said that operators of the games did not deny that the games were being used illegally, but, in the James's case, the defendant tried to pin responsibility for the illegal conduct on an individual who had been instrumental early in the operation but had died before investigations turned up the illegalities.

In addition to the testimony of undercover police, bartenders testified that winners at their locations were being paid off in cash, and that locations and operators were splitting profits on a 50/50 basis. The percentage of house take on the games was estimated to be approximately 15 percent.

Fifty-nine video *Black Jack* and *Draw Poker* machines were seized when the raids took place in 1980. Convictions came almost two years after those seizures.

James was sentenced to two years and a \$20,000 fine. He is free on bond as he awaits his appeal. Litsey and Klotter

received suspended two-year sentences and each was fined \$10,000.

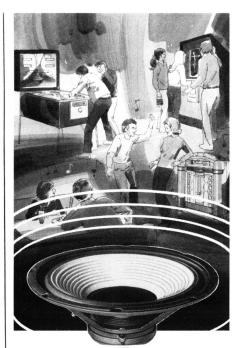
AGMA, ITC MOVE AGAINST INFRINGERS



Since changing its name from the Amusement Device Manufacturers Association to the Amusement Games Manufacturers Association (AGMA) and moving its office to the nation's capital, AGMA has made at least one significant movement. It will step up activities as a united association against copyright infringers.

Following the Association's June 7 meeting, AGMA attorneys met to discuss regulatory procedures that may be used to attack foreign governments that continue to pour infringing copies of popular video games into the United States. The move is considered significant in that it represents a joint effort by manufacturers that would enable them to act collectively as an industry rather than individually.

In doing so, AGMA will attempt to get the cooperation of the International Trade Commission to act on a continuing basis to examine imported printed circuit boards



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as they enter the country. Currently, the ITC will act only in specific cases when a company files a complaint against the shipment of a certain foreign manufacturer.

AGMA's request will come on the heels of a recent ITC move to make its temporary restraining order against infringers more permanent. ITC voted, by unamimous decision, to exclude fake games from entry into American ports due to the fact they violate trademark and copyright infringement laws.

Prior to the permanent order, the ITC had been making importers of alledgedly fake games post bonds amounting to 54 percent of the cost of assembled pieces and 300 percent of the cost of boards. That policy will continue until the new ITC/video infringement status is reviewed by President Reagan. The president has 60 days to override the ITC. If he does not do so, the order will stand.

In other efforts against infringers, AGMA said it will compile a list of foreign manufacturers who make copy games, and seek some commercal diplomatic channels against them through U.S. agencies that deal with foreign trade.

Additionally, AGMA will examine the use of statutory remedies that would attack those who purchase or possess copyright infringing pieces. The Association wants those who possess the offending games to be considered as violators with the same seriousness as those who produce the games.

INFRINGEMENTS COST MIDWAY

A Midway Manufacturing attorney, Sidney Katz, has told the Associated Press that games which violate Midway's *Pac-Man* copyrights have bitten off up to 30 percent of its \$2 billion in annual sales.

Katz estimated that each *Pac-Man* games grosses an average of \$200 a week. Overall, *Pac-Man* and *Ms. Pac-Man* games gross nearly \$2 billion in a year's time.

Katz said an estimated 55 foreign companies produce *Pac-Man* imitations. Some even sport the Midway insignia, while other alleged copies go by various titles, including *Puckman*, *Packman*, *Gobbler*, *Puc-Man*, and *Pac-Pac*.

COUNCIL DOES ABOUT-FACE

While the rest of the nation's operators continue to suffer the duress of the "amuse-

ment tax syndrome," one Oregon community recognized the plight of coin-op businessmen and eliminated licensing fees for amusement devices. In a totally unexpected action, the city of Woodburn, Ore., threw out existing licensing charges that had been in effect since 1957.

The Woodburn City Council met June 14 to consider a proposal to increase a \$24 per game license fee to \$50, but operators Jim Markum of Portland and Jack Rider, who has owned a downtown Woodburn arcade for six years, showed up to testify against the raise.

"Revenues are not in the games that were there before," noted Markum who operates 14 games inside Woodburn's city limits.

"If this tax goes through," Rider complained, "I'll have to close my doors."

Rider invited the council members to visit his World of Challenge arcade to determine for themselves how much profit there is in the operation.

Following Rider's testimony, the Council did its about-face and abolished all fees for the games. (There had been no license fee for business in Woodburn other than the coin-operated machines. Also wiped out was a \$100 annual business license fee paid by arcades and game suppliers.

Phillip Nelson of Koin-A-Game Inc. of Woodburn, in noting the operators' victory, told *Play Meter* the Council became convinced that the coin-op business was "not the road to instant wealth, and that the industry could not absorb the increase in state and city taxes with equipment costs rising and revenues declining."

The Council's action will not take effect until a new ordinance that governs cable TV in Woodburn is passed.

JAPANESE NIX "GRAY AREAS"

Three Japanese amusement associations have combined efforts to halt the presence of illegal video gambling machines amid the amusement games of that country.

The three associations—Japan Amusement Machinery Manufacturers Association (JAMMA), Japan Amusement Park Equipment Association (JAPEA), and Nihon Amusement-Machine Operators Association (NAO)—sponsor the annual Amusement Machine Show, Japan's most significant industry exposition, and have agreed not to allow video gambling pieces at this year's show to be

NEWS

held Sept. 30—Oct. 2 at the International Trade Center in Tokyo.

Show Committee Chairman Masaya Nakamura, who is chairman of JAMMA and president of Namco, addressed his committee about its intention not to allow gambling machines at the coming AM show, and committee members voted unanimously to back Nakamura's stance.

Nakamura took his position despite the fact that there are several members of JAMMA who have been manufacturing the video card and horse race games. Those firms will be asked to voluntarily control the manufacture and sale of gambling machines. Violators of the new association rule will be expelled from JAMMA.

NAO, Japan's operators' association, made its position clear when it officially cried "Let's purge gambling machines!"

Objections to the gray area pieces have risen in light of a sharp increase of the games in Japan in the last year.

"As a consequence," stated the Japanese amusement press, "arcade game operators have been dealt a serious blow to their operation income due to social criticism, decreased arcade goers...the number of arrests for illegal gambling by using gambling machines during the last sixmonth period has doubled when compared to that in the same period of last year."

Japanese press reported that 2,513 people were arrested in connection with operating the games in Japan in 1981 and that 540 video gambling devices were seized.

The associations also noted the presence of electronic roulettes and slot machines amid the industry and called for expulsion of these pieces.

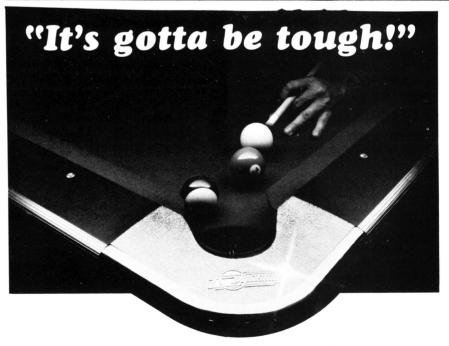
TENNESSEE "BINGOS" ORDERED OUT

Bingo pinball operators in Tennessee have been informed that a 1979 ruling categorizing the games as a violation of state gambling statutes is being enforced, and that operators must get rid of some 17,000 machines.

In 1955, the Tennessee General Assembly issued a definition of gambling devices that specifically excluded the pinball machines. In 1975, the Court of Criminal Appeals held it was legal in Tennessee to award cash payoffs on pinball machines. But in 1979, the legislature added *Bingo* pinballs to the gambling device definition.



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At that time, operators throughout the state were put on notice that they would have three years to take their machines off the market.

Chancellor C. Allen High ruled that July 1, 1982 was the date those games became illegal.

Operators of the games, let by Jack Sammons and Jerry Porter of S&P Enterprises, who operate 100 of the *Bingo* machines, have not yet surrendered to the ruling. The S&P executives filed briefs with the State Supreme Court July 8 for a clarification of what they say is a vague ruling.

Though the initial ruling may not be vague, the final interpretations of it by state authorities have left operators in doubt as to what to do with their games.

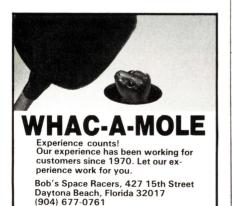
The state's attorney general, William Leech, has told operators they can leave the games on location; they need only to cease making payoffs to players. But Governor Lamar Alexander has stated unequivocally the games are "illegal to possess or operate."

Jerry Porter told *Play Meter* he feels he will lose his appeal to the Supreme Court and will have to find some way to get rid of the *Bingo* pinballs.

"We have feelers out to sell the games, worldwide, but we haven't had any inquiries yet. We can't ship them across state line to sell, but we can export them," he explained.

The games have been legal only in Tennessee, Las Vegas, and South Carolina, but laws prohibiting shipping across state lines mean that Porter and other Bingo operators must try to sell the games to interests in Belgium or Japan, where, Porter said, the games are very popular.

"If we can't raise any interest in Belgium or Japan, we'll just have to store them somewhere. We think that's unfair, and we want the state to buy them from us, since they have put us out of business without





due process."

Is there a possibility that the state will buy the games from the beleaguered operators?

"(Expletive deleted)...no!" Porter moaned.

INSTITUTE WILL FIGHT FOR OPS

Leaders of four major amusement and vending firms have announced a joint effort to establish a national organization to fight negative legislation imposed on coin-op industries. The new organization is titled the National Coin Machine Institute (NCMI) and has set up shop in Fort Lauderdale, Fla.

"Our focus is very, very narrow," said Bob Wrightman of American Automatic Vending in Cleveland. "We want to increase the understanding of the problems that face operators—the understanding of the general community and particularly those responsible for legislation."

The Institute will concern itself with cigarette, music, and amusement industry

problems, because "those are the least understood and most subjected to regulations and taxes," Wrightman said.

Other principals of NCMI are Van Myers of Wometco, a publicly held Miami firm involved in a wide range of vending operations; Sonny Silverstein of Silco West, a significant Lost Angeles operation; and Arthur Fein of the Wainrite Group, another publicly held vending firm, this one out of New York.

Wrightman and friends want to combat legislation that has resulted from limited public information.

"A single game machine does well," noted Wrightman, "and that leads to the feeling that all machines do well. And, of course, we know that is not the case."

NCMI officials initially tried to get amusement and vending associations to take such a burden on themselves. Wrightman said he and the others offered their input to the Amusement Machine Operators Association and the National Automatic Merchandising Association.

"We are not trying to compete with AMOA or NAMA. We are not an association. We are not interested in long-term organization. We simply want to do the job and get out. None of us needs an extra job."

In getting set up to do the job, NCMI has staffed an office at 2455 E. Sunrise Blvd., Fort Lauderdale, Fla. 33304. The phone number is 305/561-0886. It has also secured advertising agency services of the New York firm, Mount and Nadler.

Current membership (as of this writing) is about 20, but Wrightman is looking at an initial membership of around 100.

"We are more interested in good geographic dispersal than numbers," Wrightman said. NCMI plans to implement its program by producing informative materials and disseminating them wherever the coin-op industry faces a serious challenge.

"Some restrictions are grossly unfair, and they are the result of a lack of understanding. To get information to legislators, we want to organize a grass roots organization of operators who can help us keep local officials informed."

CTA SUED, SUING BACK

Counter Top Amusements of Raleigh, N.C., a firm that describes itself as a video game business opportunity company, is being taken to court by a client who wants his money back.

Ted Watson, owner of Outer Limits arcade in Carey, N.C., said CTA salesman Mike Bovelski told him he could get his \$25,000 deposit back "prior to notification of shipment" of the games he was to buy.

"I looked around and realized their equipment is not what the kids like to play," said Watson who decided to take his business elsewhere.

Bovelski said he couldn't return the money because he had already turned over the \$25,000 to the "people I'm buying from," the parent Counter Top Amusements in Nashville, Tenn. Bovelski said Watson had agreed to a specific list of machines that included many of the current hit games.

"If he would have been unable to open his place or use the games, I might have tried to get him his money back," said Bovelski, "but he just wanted to do business with someone else."

Bovleski said it was "absolutely false" that he had told Watson he could have his deposit back if he decided against his investment.

"I would never say that to a customer," he said.

CTA has filed a countersuit against Watson, complaining that Bovelski never

made such claims and asking to be allowed to keep the \$25,000.

Adrian Johnson, another of Bovelski's clients, said Bovelski made that exact promise to him before he arranged for shipment of his games.

Johnson is angry with Bovelski because he claims one of the games he received is an infringing copy of *Frogger*, to which Sega Enterprises holds copyrights.

"There are no Sega markings anywhere on it," stated Johnson, who said the game was shipped to him from Providence, R.I.

Bovelski confirmed the game was sold to CTA by Glak of Providence, a firm formerly known as Omni that has been sued by several copyright holders for assembling and selling infringing copies of popular videos, but said CTA had stopped dealing with that company in March.

"I would be very surprised if that *Frogger* was not legal," Bovelski continued. "I have had no indication that it is."

Sega officials said that no *Frogger* games or boards had been sold for use in the United States other than in Sega manufactured and marketed games.

Bovelski said he would replace the questionable *Frogger* with a Sega *Frogger* while he tried to determine whether or not

it was an infringing copy. He said Glak would have to take the game back if it was not legal.

SHOE IS ON OTHER FOOT

Having carried the banner of copyright protection for their interests in popular videos, some firms are now having trouble with the same type of litigation being imposed on them from outside the industry.

In two separate actions, Midway Manufacturing and Nintendo Inc. are being attacked for copyright infringement.

Midway's Pac-Man is being attacked by an Oakland food company, Cornuts Inc. That firm has filed suit in U.S. District Court in San Francisco seeking unspecified damages and an order blocking sale and promotion of Pac-Man gum, popsicles, and other food items.

Cornuts execs said the Pac-Man profile

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is "strikingly similar" to the Cornuts symbol, a registered trademark that has adorned the company's packages since 1964

"We've used our logo for years and years," Cornuts Vice President Steve Burchik said. "When people see it, they think of Cornuts. Now that it's appearing on other food products, people will think of *Pac-Man* when they see it, which essentially dilutes its value."

The main difference between the *Pac-Man* and Cornut logos lies in the configuration of the mouths. The Cornuts logo has a smile, while the *Pac-Man* mouth looks like a wedge cut out of its circular face.

Donald Welsh, attorney for Midway, said the company was certain "we have not violated any valid rights of the Cornuts company, and we intend to prove that in court."

Meanwhile, Universal Studios, owners of the King Kong patent, have taken Nintendo into Federal District Court in New York. Universal claims Nintendo has used the King Kong story and characters in its *Donkey Kong* game. The motion picture firm accuses Nintendo of trademark infringement and wants permanent injunctive relief and damages.

Nintendo officials said they felt there was no substance to the charges. Howard Lincoln, an attorney for Nintendo and member of the firm of Sax and MacIver, would only say that Sega is studying the complaint and accompanying interrogatories, and that John Kirby of the Mudge and Rose law firm of New York has been retained as additional counsel.

"You can bet we will fight like hell," Lincoln added.

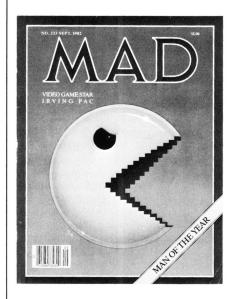
SOMEWHERE, A PLACE FOR THEM

While video card games are under attack in many states because they are giving arcades a "gambling" atmosphere, they are also struggling to get a foothold in gambling capitals of Las Vegas and Atlantic City.

Authorities in Nevada have expressed concern over the proliferation of the new video gaming machines. They have even denied the required testing for some new games and stated that it may be necessary to impose a moratorium on the new pieces. The reasoning, ironically enough, is that the games create a "carnival" or "arcade"

atmosphere, and that they are "not consistent with the image of Nevada."

'PAC-MAN' GOES 'MAD'



With all the attention given Midway Manufacturing's *Pac-Man* these days, could anyone have expected the carnivore not to go *Mad*?

In its September issue, the self-proclaimed idiotic publication *Mad* magazine makes *Pac-Man* its "Man of the Year" and feeds the character pieces of the issue persistently throughout the magazine.

At one point, the issue presents a *Mad* cartoon of a busy arcade and asks, "How many mistakes can you find in this picture?" It doesn't expect the reader to discover flaws in the cartoon; *Mad* provides the answers in a column bordering the drawing.

Some of the humorous answers suggest views commonly held about the coin-op industry. For example:

"There is an 'Out of Order' sign on a game that's out of order...The owner of the Video Game Center is reporting all of his cash income...The Game Center manager is actually exercising his right not to admit undesirables...The Mafia does not own any of these video game machines...The person who didn't receive his change from the vending machine is getting reimbursed ...The change-making machine is not out of change...There are girls in here...The 'Instructions for Playing the Game' is clear and comprehensible...The student is not cutting classes to play the games..."

Many a truth is spoken in jest.

COPYRIGHTS BACKED IN ENGLAND

A British High Court has ruled for the first time in England that video games are copyrightable. The ruling came in the latest round of a piracy battle between Sega Enterprises and John Richards of Trolfame over Richards's copy of Sega's *Frogger*.

"On the evidence before me, I am clearly of the opinion that copyright under the provisions relating to literary works in the 1956 Copyright Act subsists in the assembly code program of the game of *Frogger*," opined Justice Goulding.

In addition to requesting copyright protection for the assembly code (object code), Sega also claimed protections for designs displayed on the screen and for protection under the same laws that cover the sequence of visual images in movies. Goulding refused to rule on the second two points, saying his views on the first issue were sufficient to take action in regard to preliminary injunctive relief sought by Sega against Richards and Trolfame.

The British trade press hailed the courage of Goulding in making a decision on the issue "in the clearest of terms we can hope for at the moment.

"Other judges have pussy-footed around the issue," the trade press went on. "Some have wrung their hands and wished for a firm ruling on the basic copyright issue in the video piracy war."

Some American manufacturers have contended that the lack of firm copyright litigation in England has contributed to a destruction of the amusement industry there.

ST. LOUIS OPS PROPOSE BILL

St. Louis has initially approved an arcade ordinance satisfactory to video game operators there, and it is the result of the input of the city's Coin Machine Operators Association.

The city has spent several months and a great deal of discussion over an ordinance that prior to the input of the Association, would have required teenagers to carry a note of parental permission before they could play videos in arcades in the city.

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SHIELD GROUP PLANS BATTLE FOR INDEPENDENTS



SHIELD, a legal defense action group, is being formed to represent independent members of the video game business.

The group is seeking support from all members of the video game industry who share this common purpose.

TO PROTECT OUR INTERESTS AND FUTURE SURVIVAL BY DEFENDING IN THE COURTS THE RIGHTS OF INDEPENDENTS AGAINST WHAT WE BELIEVE TO BE THE OVERSTATED PROPRIETARY RIGHTS OF SOME GAME MANUFACTURERS. THIS INCLUDES THE OPERATORS RIGHT TO USE ENHANCEMENT AND SPEED UP KITS IN HIS GAMES!

SHIELD contends the corporate giants have never won a case against an operator on the merits. There have been no jury trials. They have just piled up their copyright victories by outspending their opponents on legal talent. And we intend to reverse that process—right now.

Help us balance the scale of justice by your support. We need your information, input and contributions.

SHIELD RETAINS RICHARD STERN AS ATTORNEY TO FIGHT BACK

Richard H. Stern was selected as lead council for Shield.

Formerly chief of the U.S. Justice Department Patent and Intellectual Property Sections, Mr. Stern has successfully prosecuted U.S. Government antitrust cases in many federal courts. And he's headed the government's computer software patent cases in the U.S. Supreme Court. He is a noted expert in the newly emerging field of computer software copyrights, and is uniquely qualified to lead our defense against abusive and monopolistic practices.

We are going to get the courts to listen to the small guys' story for a change.

To clarify the legality of enhancement and speed up kits is SHIELD's immediate project.

SHIELD, STERN MAKE FIRST LEGAL COUNTER ATTACKS

Mr. Stern has already written a strong legal brief in defense of operators using speed up kits. He believes there are meritorious defenses that can be used to assert the rights of people to develop, sell, and operate speed-up kits in coin-op video games.

The Shield Group is now engaged in such a fight. We feel this fight is in your best interests as well. So we are asking for your contribution to carry forth with this struggle.

HELP YOURSELF... HELP SHIELD!

YOU HAVE A STAKE IN OUR BATTLE, AND WILL BENEFIT FROM OUR SUCCESSES. IF YOU ARE GOING TO GET YOUR FAIR SLICE OF JUSTICE, YOUR SIDE OF THE STORY WILL HAVE TO HAVE A POWERFUL HEARING IN THE COURTS...THAT IS WHAT SHIELD INTENDS TO DO. DON'T LET PRECEDENTS THAT WILL DIRECT THE WHOLE COURSE OF THIS INDUSTRY BE SET ONLY BY THE BIG MANUFACTURERS...ACT NOW AND BE REPRESENTED.









TAKE ACTION!

Yes, I want to support SHIELD's legal work with a contribution:

- □ I want to earmark my contribution for the speed-up kit defense.
- ☐ Use my contribution for the general objectives of Shield.

SAVE SPEED UP KITS!

Correspondence and Contributions Please Mail To:

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c/o Harrison Blackmond, Attorney SHIELD Trustee and Treasurer 6399 Wilshire Blvd., Suite 808 Los Angeles, CA 90048

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NEWS

(Play Meter, July 15, p. 26)

That bill was proposed by Alderman Vivrus Jones and included a definition of an arcade as any establishment with more than a single game.

Under the new bill, arcades will be defined as businesses offering three or more pieces. Those "arcades" will have to apply for a city license to do business. Establishments offering one or two games would, in effect, be regulated by persons living or working within 500 feet of those businesses. Those persons would be able to circulate petitions that would call for the businesses to either apply for an arcade license or remove their machines.

"We did recognize that you had a problem," Gary Morris, attorney for the operators told the Board of Aldermen's Public Safety Committee, "and that there are a number of places where large groups of kids get together and cause problems in a particular area. But the machines aren't the problem. People are the problem."

"This seems to us to be a much more workable bill," said Jerry Nissenbaum of the Coin Machine Operators Association. "As an industry, we are definitely not trying to lead to a delinquency problem. We feel this bill would give the public-atlarge the ability to deal with these problems while not penalizing the arcade owners who operate their businesses properly."

Jones said he believed the new bill would solve the problems for which his own bill was designed.

'PEPPER II' MODIFIED

Exidy Inc. has developed an idea that it hopes will solve many of the current equipment problems for operators and distributors. The Silicon Valley resident firm is offering modification kits of its new game *Pepper II*. The kits can be utilized in an older piece from Exidy, *Venture*.

"We wanted to come up with something that would attack some of the bigger problems faced by operators and distributors," offered Exidy President Pete Kauffman. "We think this concept will help them confront problems of high interest rates, low earning machines, and excess inventories. And it will help us, a small manufacturer, get our share of attention."

Kauffman said the modification kits, which carry a suggested retail price of \$450, will help operators who have *Venture* games currently not registering high earnings. It will also help distributors with *Venture* games they cannot move.

Exidy is sending a free modification kit with each *Pepper II* to distributors. "This gives him (the distributor) a lot of elbow room," Kauffman explained. "He can do with them whatever he wants." Distributors have a variety of options including charging for the extra *Pepper II* modification kits, or selling them to another distributor. "It's a free-enterprise system," Kauffman added.

Kauffman said the experiment does not establish a trend for Exidy's future offerings.

"Let's give this one a try," he said, while admitting that if turning an old game into a useful new game is as much of a coming trend as it seems to be, this Exidy offering could prove successful enough to repeat.

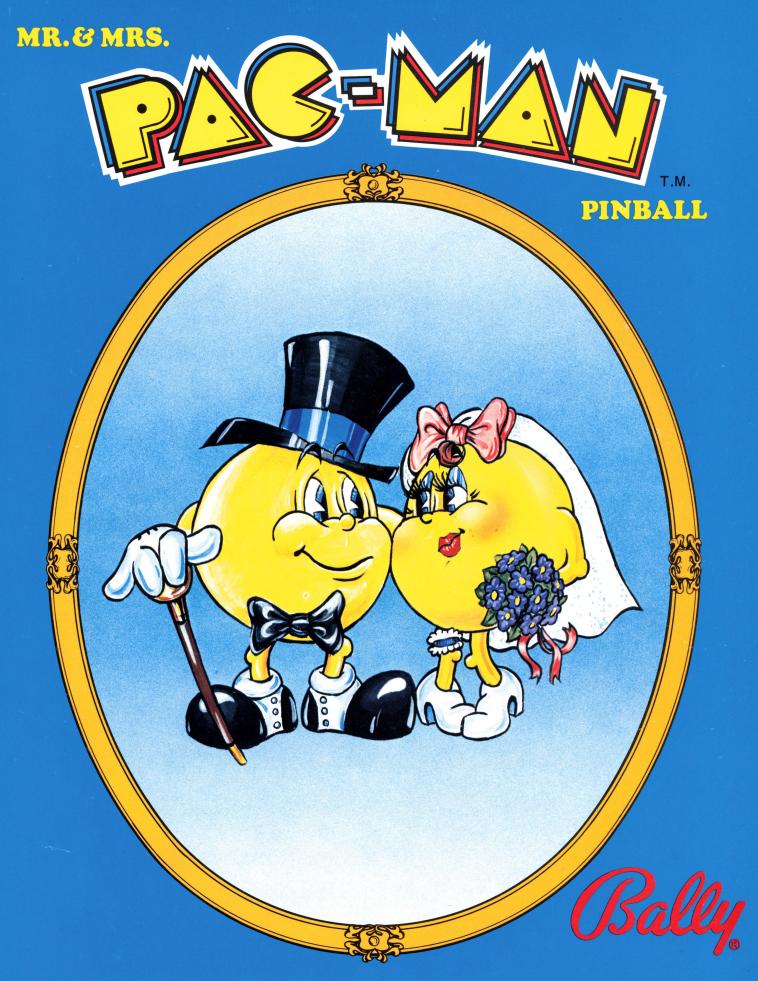
"Overall, the response to our idea has been excellent. Operators and distributors alike have given us very positive feedback. In fact, some of our large distributors were the people who suggested we make the operators aware of the offer by advertising it," Kauffman said.

DACONO TESTS YOUNGSTERS' RIGHTS



Despite the fact that video games are the sole source of entertainment for youngsters in Dacono, Colo., a small farming community north of Denver, the town council has outlawed the games to anyone under 17 unless the player is accompanied by a parent or guardian.

The games are located in two super-



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Tips on Playing

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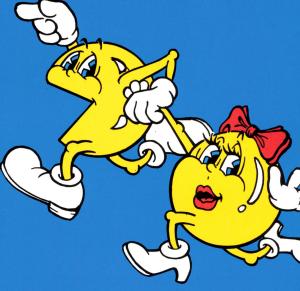
Qualify for the PAC-MAZE by accumulating a minimum of six moves.

Earn more PAC-MEN. Spell P-A-C-M-A-N by hitting the stand-up targets behind the droptargets.

Earn PAC-MAN "Aggressive" by hitting the top drop-target bank three times.

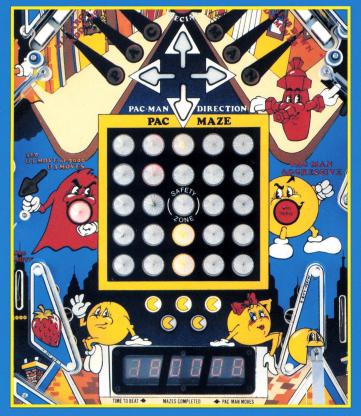
Keep an eye on the playfield digital display for...

- a) PAC-MAZE "time to beat"
- b) PAC-MAZE completions
- c) PAC-MAN moves you've earned





you can play video PAC-MAN on the PAC-MAZE via our new VID-GRID™ feature. All the moves and excitement of video in the middle of our pinball; a game within a game!

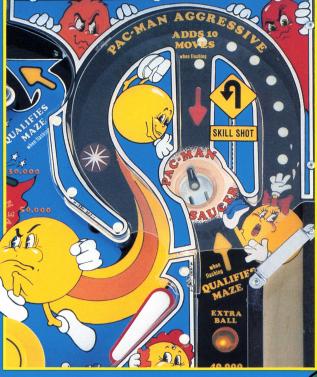


P.S.—A helpful hint…the saucer skill shot off the plunger is your fastest way to activate the PAC-MAZE VID-GRID.™ You'll get 10 moves and

an Aggressive PAC-MAN.



Remember! The left flipper button controls direction and the right flipper button controls movement.





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The operation of these games and the features therein may be subject to various state and local laws or regulations. It is not intended herein to solicit the sale of such games in any jurisdiction wherein the same may not be lawfully sold or operated.



NEWS

markets and a restaurant, and the ordinance has led the owner of one of the supermarkets, which contains 10 of the games, to ship them out of town.

Additionally, the ordinance attached a \$75 licensing fee to each game and established that 17 and 18-year-olds could play the games only after 4 p.m. on school days.

The ordinance was passed after an emotional town council session that featured the police commissioner, Rex Taylor, who read a police report saying two young girls had allegedly performed sexual acts to earn money to play the games.

Meanwhile, a law professor at the nearby University of Denver said he believed the issue would go to court.

"I bet you a dollar to a doughnut that it will be litigated," George Pring said.

He said the court's decision—whether or not to allow the ordinance to remain in effect—would "depend totally on whether the court will characterize that the video machine is involved in freedom of speech."

The ban is similar to the one imposed by Mesquite, Texas, on its youth. That case, wherein Mesquite tried to shut down Bally's Aladdin's Castle, was argued all the way to the Supreme Court where it was affirmed that the city could not prohibit youngsters from gathering to play video games.

SEGA HAS COPIES CONFISCATED

Pursuant to a preliminary injunction obtained by Sega Enterprises, an executor of the Kofu District Court in Japan has removed unlicensed games from two game locations operated by Taito Shoji K.K. (Head Office: Isawacho, Higashi-Yatsushiro gun, Yamanashi-ken, Japan).

Last October, Sega obtained a preliminary injunction against the same company prohibiting the manufacture and use of *Frog* boards. *Frog* is an unlicensed copy of Sega's *Frogger*. A civil suit against Taito Shoji, seeking damages and other relief, is now pending.

As a result of investigations made this past April and May by Sega at several locations operated by Taito Shoji, it was found that unlicensed copy games of Zaxxon and Frogger, both Sega's copyrighted products, were being operated at those locations. Hence, on June 2, Sega

filed an application for preliminary injunction with the Kofu District Court to prohibit Taito Shoji from disposition of the alleged copy boards and instruction sheets being operated at its game locations, and to order custody thereof by an executor of the Court. The preliminary injunction was issued by the Kofu District Court on June 9, one week after Sega's application for the injunction.

On June 11, based on the preliminary injunction order, a court executor went to the game locations of Taito Shoji in and near Kofu. The video game machines containing the alleged offending boards were opened, and the boards removed and confiscated by the executor. Those video game machines that could not be opened were attached by the Court and placed under court seal.

CHUCK E. CHEESE MEETS THE MAYOR

Chuck E. Cheese went to Port Chester, N.Y., Board of Trustees meeting to challenge a city ordinance that limits the number of video games in any establishment to two, and when the mouse had made his point, he succeeded in rattling the cages of the town's operators.

"There are a lot of operators in this town," said Westchester Operators Guild attorney Frank Sisca, "and we have just finished hammering out an ordinance with the town during which we succeeded in getting the law modified in our favor. Then Pizza Time comes along without consulting any of the operators and asks for an exception to the ordinance."

Pizza Time Theatres wants to open a Port Chester store, its second in the state of New York. To do so, the company sent a life-sized Chuck E. Cheese to an early June meeting to ask exception to the February ordinance that had halted the proliferation of games in Port Chester, effectively eliminating arcades from the town.

Cheese based his request on the premise that his operation would not attract a "typical game arcade crowd."

The request caused a stir among operators who had helped formulate the ordinance that kept arcades out of Port Chester in exchange for a modification of licensing fee rates and an exclusion from the ordinance for all coin-op amusements except video games.

"At least two operators had been

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Founded in 1980, Randy Fromm's Arcade Schools are the most respected and often recommended training programs in the coin amusement industry. As a technical writer, Randy Fromm's comprehensive articles appear reqularly in the industry trade journals. Now he has condensed his ten years of experience into a proven Arcade School program that has allowed hundreds of Arcade School graduates learn the easiest, fastest, and most accurate ways to repair coin operated video games.



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NEWS

interested in arcades in Port Chester," said Sisca, "and we asked them to drop their requests and cooperate with the ordinance "

Sisca told the Board of Trustees the Pizza Time operation would be bad for the image of Port Chester, and that it would take business away from small business owners who relied on profits from the one or two video games they were allowed to have.

"You can call it a restaurant, or a theater, but it's still an arcade," Sisca said.

Cheese contended that Pizza Time would appeal to younger children and not take the teenage players from the small businesses. He added that the restaurant would help Port Chester by providing some 120 jobs.

The situation marks the first documented occasion operators have been in a position to seek protection under a law that prohibits the establishment of arcades.

EMPIRE FOLLIES

The curtain has fallen on the 3rd annual Empire Follies, marking the finale of another edition of the industry's most entertaining public relations extravaganza.

Although the final figures had not been tabulated at this writing, Empire Distributing had already presented a check for \$30,000 to the Michigan Order of Alhambra, a Catholic charities organization who will distribute the funds to help mentally retarded children throughout Michigan, Hank Heiser of Empire indicated that another \$5,000 to \$10,000 will go to the organization after a final count of the proceeds is reached.

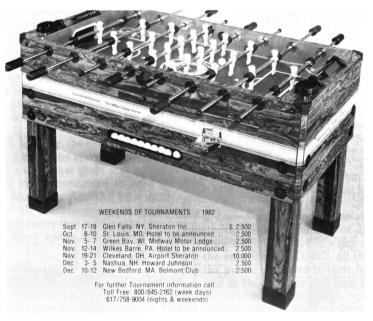
The Follies gets its initial support from manufacturers who donate games to be sold to raise revenues to stage the show. What's left of the revenues from the games' sales (last year's production costs were in excess of \$20,000) is combined with the proceeds from ticket sales to make up the final donation to the charity.

Follies '82 evidenced the tremendous success of the show in years past. It was the first time two shows were staged—one for the public, one for game operators.

Noting this year's theme, "Give them tomorrow," Heiser said: "In this time of federal cutbacks causing the closing of some of the facilities for our 'exceptional children,' we have never so felt the need to

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... aid the retarded in becoming productive members of society as we do now. Empire and the volunteers who work on the Follies are committed to the cause of helping the mentally retarded of Michigan."

Heiser noted that many of the supplies needed to stage each show were donated by Michigan companies. Lumber and lighting were essential elements for the shows' sets and were supplied by local donors.

This year's proceeds bring the three-year total contribution to retarded children from the Empire Follies to more than \$80,000

Need a shopping list? Check out the Oct. 1 Buyer's Guide.

BALLY MOVES IN

Bally Pacific, formerly Advance Automatic Sales, has moved from its San Francisco location to a larger, single floor facility in the south part of the city.

The new Bally distributorship facility encompasses 47,000 square feet of space and provides six loading docks and parking for 50 cars. Previous headquarters for the firm was in a multistory building and offered only one loading dock.

Bally Pacific had scheduled its open house for Aug. 8, President Chet McMurdie said.

Under its previous name, Advance Automatic Sales, the firm has been owned and operated by Bally for 10 years. But, according to McMurdie, Bally wants all its distributorships to carry the parent company's name. Hence, the change to Bally Pacific is seen in the same light as the recent change for Empire Distributing to Bally Midwest.

The new address is 540 Forbes Blvd., in south San Francisco. The new phone number is 415/871-4280.

ATARI **LICENSES** CONCEPT

Centuri Inc. and Atari Inc. have reached a licensing agreement whereby Centuri will manufacture and distribute Tunnel Hunt, a new game out of the Atari brain trust.

The agreement marks the first time Atari

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has licensed a game concept to another manufacturer.

"We're extremely pleased to be working with an industry leader like Atari in this, their first such licensing agreement," said Centuri President Arnold Kaminkow. "We're also very excited about the July introduction of the game *Tunnel Hunt*. Not only is the game concept exciting and challenging, but its unique wrap-around cabinet styling adds yet another dimension to the coin-operated game industry."

Atari executives refused to comment on why Atari had chosen not to manufacture the game.

In *Tunnel Hunt*, the player uses a fourway joystick to guide his vessel through a geometric space tunnel while attempting to eliminate attacking enemy ships.

FOOD CHAINS TAKE TO VIDEOS

In light of the impressive profits that convenience store chains are registering on



their video games, the big boys in the supermarket game are following suit. Among those jumping on the bandwagon are Safeway, Kroger, and A&P.

Martin Sloane, whose New York Daily News column on supermarket shopping is well circulated, said the Safeway chain has installed electronic games in more than half of its stores, and Kroger and A&P are close behind.

Sloane reported that some smaller chains are holding back from installing the games, worrying about their "family

image," but the list of holdouts is shrinking.

"The supermarkets that have experimented with the games have found that potential problems can be minimized if they install only a limited number of the machines, keep them out of high traffic areas, and carefully supervise the players," Sloane said.

Sloane indicated that a typical supermarket location will produce about \$100 a week from each video for the store owner.

Additionally, Sloane wrote that video games are 'an almost perfect moneymaker. They don't require any investment since eager game operators will install them without charge in exchange for a 50/50 split of the revenues."

NEW TECHNICAL SCHOOL

Banner Specialty Co. of Philadelphia has secured *Star Tech Journal* publisher Jim Calore to teach a traveling technical school



THE CALENDAR

September 10—11

Wisconsin Amusement and Music Operators, Paper Valley Hotel and Convention Center, Appleton

September 10—12

Joint North and South Carolina Associations meeting, Radisson Plaza Hotel, Charlotte

September 24—25

West Virginia Music & Vending Association convention, Ramada Inn, South Charleston, West Virginia

September 30—October 2

Japan Amusement Machine Show. Exhibition Hall of the International Trade Center, Harumi, Tokyo

October 7—10

NAMA convention and exhibit, The Rivergate, New Orleans

October 14-17

ENADA (exhibition of coin-op amusement machines), Congress Building (EUR), Rome, Italy

October 15-16

Amusement and Music Operators of Virginia, annual convention and trade show, John Marshall Hotel, Richmond

November 18—20

AMOA Exposition, Hyatt Regency Downtown, Chicago

November 18—20

IAAPA annual convention (Parks Show), Bartle Hall, Kansas City

1983

January 10-13

ATE 39th Amusement Trades Exhibition, Olympia, London, England

March 16-17

Nihon Amusement-Machine Operator's Association, second amusement expo, Shinjuku N.S. Building, near Keio Plaza Hotel, Shinjuku, Tokyo.

March 25-27

Amusement Operators Expo '83, Hyatt Regency O'Hare, Chicago

aimed at educating entry level technicians within the Banner service area.

Calore has written a textbook and begun conducting classes for what is considered to be the first distributor-backed service school in the industry.

Classes are limited to 12 students each and are being offered on a rotating basis in five cities—Philadelphia, Pittsburgh, Baltimore, Washington, D.C., and Richmond, Va. Each session runs for one week, Monday through Friday, from 9 a.m. to 5 p.m., and offers a workshop approach to dealing with game repairs. The school has applied for accreditation in the states where it will hold classes. Those applications are awaiting approval by the various state bureaucracies.

The classes are conducted either at Banner distributor showrooms or at Holiday Inns. The 32 hours of course work costs \$475. That price includes all supplies, reference materials, and workbooks utilized during instruction.

Calore and Banner have agreed on an ambitious schedule that includes 18 weeks of instruction within a year's time, from July 12, 1982 to July 23, 1983.



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KIDDIE RIDES GO TO DISTRIBS

Utec Inc., a Cincinnati manufacturer of kiddie rides, has decided to abandon its policy of direct sales. Instead, Utec is marketing only through distributors and has begun to establish "exclusive" distributorships throughout the United States.

"Our long-range growth plans make it imperative to develop an effective distributor network, completely supported by the manufacturer to provide mutual benefits to both the manufacturer and distributor." said President Warren Rosendahl Jr.

"Utec will not operate in competition with its customers in order to reach its long-range goals," said Sales Manager Richard Hall in announcing the policy

The firm has established some initial distributorships, all of which will have exclusive rights to the territory they serve. Caribe Amusements of Miami will maintain an inventory of Utec products and serve operators in the south Florida region. Automated Consultants Systems has been retained to distribute Utec kiddie rides in Kentucky. Westroe Distributors will handle the rides in Puerto Rico and the Caribbean Islands.

Utec is the manufacturer of two new motorcycle rides that are the company's most popular current pieces. The rides feature actual motorcycles and include motorcycle sounds a youngster can rev up by rotating the right-hand grip. The company also offers several animal rides including *Fuzzy*, a horse with furry hair that is a favorite among youngsters 3 and 4 years old.

Utec's kiddie rides are designed to appeal to ages 3 to 8.

JERSEY OPS FIGHT BACK

At least 15 operators have filed suit against municipal governments in New Jersey to reverse what they contend are unfair restrictions on video game operation.

The suits led Superior Court Judge Harvey Smith to convene attorneys for more than 30 Bergen County municipalities to discuss the various legal challenges brought by the operators and find some common ground on which to deal with them.

The attorneys met June 23 in Hackensack and agreed to form a committee composed of municipal attorneys and operators' attorneys to hammer out differences. The committee is headed by Bergen County Bar Association chairman Steven Sinisi.

The meeting produced a categorization of problem areas named in the suits—licensing fees, age restrictions, minimum distances of arcades from schools and churches, and moratoriums on games. Those four broad issues are being addressed by the committee.

Of those issues, chairman Sinisi said he felt the question of whether or not a municipality could declare a moratorium on all video games was crucial.

"I think the moratorium issue will have a bearing on all other litigation," he said.

Meanwhile, operators have organized behind James Cuccio and the North Jersey Amusement and Music Operators (*Play Meter*, June 15, p. 38). That organization has submitted two ordinances as models to Sinisi's committee, an ordinance governing street operators and another regulating arcades.

"The municipalities fail to realize there are different sorts of vendors. Everyone wants to exclude the arcades, and then, by drawing overbroad ordinances, they end

Short Subjects

Mack Pope of Baton Rouge, La., told *Play Meter* he is a victim of the "bis op" firm, Quorum Industries. Pope said he paid \$32,900 to the firm and then received 10 games. The games were several weeks late in arriving, Pope said, and poor substitutes were included for games he had originally been promised. Pope reported he is having trouble getting service from the Dallas, Texas, firm and is pursuing legal paths to redress. Quorum is already under attack in its home state. (*Play Meter*, May 1, p. 16)

Kevin McKee, an occupational therapist, has introduced the use of video games to Point Pleasant Hospital in Newark, N.J., to help patients improve coordination and redevelop muscles and perceptual ability. He said the games work in therapy because the patient is motivated by the fun of playing and the feedback that comes with increased levels of accomplishment.

The June issue of Seventeen magazine reports that girls who play video games show dramatic improvement on tests in spatial relationships, logical reasoning, and dealing with abstract shapes and

forms. The study was conducted by **Edna Mitchell**, chairman of the education department of Mills College in Oakland, Cal.

Williams Electronics has made an offer to buy 82 percent of the stock of Dale Electronics, a manufacturer of resistors and resistor networks. Williams will pay \$26 million for the Dale stock. The transaction is subject to approval by the bankruptcy court administering Chapter 11 proceedings for the Lionel Corp. which owns Dale.

Helen Gray was named vice president/corporate communications for Atari. The position is newly created for Gray who comes to Atari from her job as executive director of the Horatio Alger Association of Distinguished Americans.

Bernard Powers, director of marketing for Bally's Aladdin's Castle division, has achieved a masters of business administration degree from the Lake Forest School of Management in Illinois.

up getting the mom and pop operations," Cuccio explained.

The average operator, Cuccio said, services locations that contain two or three games.

"We are being hurt," he continued, "by these new ordinances directed at the arcades, especially in terms of the licensing fees."

Cuccio said the town of Cliffside Park, now under a video moratorium, has invited the operators' association to attend a meeting wherein the town will consider the model ordinances.

Need a shopping list? Check out the Oct. 1 Buyer's Guide.

SNAPSHOTS



Steve Blattspieler has been promoted to vice president of sales at Cinematronics. As such, he will head up the company's sales efforts and promises some new sales approaches.



Bally has entered the food and game arena. It's Aladdin's Castle division has opened a Pac-Man Palace in Kalamazoo, Mich. The family entertainment center, as it is billed, will offer limited fast food selections and the usual menu of games. Aladdin's Castle President Bill O'Donnel Jr. said that the food and games concept will provide continued growth for its amusement centers in this decade.



Kay Podany has been named by the Dynamo Corp. as customer service representative. In her new position, Podany will be responsible for coordinating orders and maintaining day to day communications with key distributors and operators.



Malibu Fun Centers, the Atari/Warner Communications entries in arcade operations, have been conducting "4 for 4 Fun Days" in coordination with 7 UP this summer in five cities in, primarily, the southwest part of the country. Subtitled "Help Clean Up America," the promotion will feature an exchange between the centers and youngsters who bring aluminum cans there for recycling. Four cans will render four game tokens, and the proceeds from the collected cans will be donated to United Way chapters in the cities of participating locations. 7 Up's Steve Kapur (standing) and Malibu's David Bursteen are shown here completing a TV commercial to promote the event.

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Commission (C. All Richts Reser

Video moves from the game room to the living room

By Roger C. Sharpe

or about the last six years, I've tried to offer some overviews and observations of what has rapidly become a sister industry: consumer electronics.

Now, more than ever, the relationship that exists might even be closer, running in many ways on a parallel course to satisfy the unquenchable thirst of the masses for electronic entertainment.

This summer's edition of the Consumer Electronic show, held in Chicago the first week of June, did nothing to dispel the feeling that the demand has abated. In fact, demand is growing stronger and more farreaching as evidenced by no less than two dozen companies showing off software and hardware of games, watches with games, small hand-helds, table-top versions, cartridges for home computers, high-end programs for the more sophisticated user, and a slew of other variations on a theme that should find its way into the hearts of millions by the time Christmas rolls around.

What you have to keep in mind, no matter what your role in the industry, is that the future is dictating the nature of the present. Very simply, the potential application of video has already been laid.

Just as the advent of television was destined to make a wide-ranging impact on an entire generation, so too has video's destiny been preordained by a society that demands new technologies to upgrade the quality of life.

And whether it's banking or shopping at home, the road is being paved by that mesmerizing attraction: the video game as a means to the eventual end. And like the fated lemmings, everyone is attempting to get in the swim before the water gets too deep.

At this juncture, the entire affair is in its infancy, still, as the entrants scramble for position and market share that will allow them to set a foundation to gain even greater footholds. And the main beneficiary of all the movement is the coinmachine industry that is riding the crest for greater glory and a longer product life cycle.

Eye-opening year

In covering the arena for the past seven years, I have seen the trends come and go and return again, stronger than ever. This year especially has proven to be an eye-opener, with the public being fed a steady, if not overwhelming, array of products that will soon experience the necessary shake-out of imitators to the throne.

Interestingly, more attention is being played this season by the addition of some heavies trying to grab a piece of the action. You find MCA, Twentieth Century Fox,



My question is just how much can a person play when he is surrounded by games from the minute he wakes up until he goes to sleep?

Thorn EMI, and others moving away from their staple of feature films to encompass games. Lucas, the creator of "Star Wars," makes news with a relationship that bonds it to Atari, and the excitement goes on and on

The scenario finds Atari, Astrocade (formerly Bally's effort for the home), Magnavox, Mattel, and a new addition to the sweepstakes, Coleco, all trying to get the public interested in their hardware as well as the software that goes with it. But this is where the fun begins. Now there are companies who are only producing the software for a variety of systems, so the ultimate consumer decision becomes more complex because the menu is being stretched by a variety of parties. So Mattel might be adapting present games for Atari and so on with the razor and razor blade analogy holding more than true.

But there's even more because you also have the high-end systems of Texas Instruments, Commodore, and others, who are suddenly trying to soft-sell their basic capabilities by offering sophisticated game play as an added incentive for prospective purchasers. But Mattel, for one, has a keyboard that is slowly and methodically being introduced that expands the unit beyond cartridge game playing. And the battle lines go from there.

There are some other efforts that have tended to cloud the picture. Vectrex by GCE is a self-contained unit with screen overlays and cartridges that don't need a separate TV for use, and another similar creation is Entex's AdventureVision, which also is self-contained and utilizes game cartridges.

Competitive world

But go beyond these models, and you suddenly find yourself in the world of the keenly competitive miniature knock-off of the hand-helds and counter-tops.

Now, with the basic picture complete and the realization that this segment alone is going to be tapped beyond belief or even beyond the programming available to fill all the different applications, comes the enviable coin-op manufacturers who are neatly resting on their laurels and enjoying individual successes. Suddenly there's knocking on the door and a bidding war for game concepts of all types, new, old, and even those yet to hit the streets. It's a ready and willing partnership where funds are there for the offering and taking.

And don't think the impact isn't being noticed. Some of the names seen increasingly on product literature are the likes of Stern, Gottlieb, Cinematronics, Data East, Taito, Sega, Exidy, Universal, Konami, Namco, Bally, Williams, and others ready to leap on the gravy train in order to gain more income on existing product, or insure a place for future games that will take the added interest and hopefully return some of the payback on location by players who are suddenly aware of the model. It is, to say the least, an interesting teaming of capabilities that can make the ordinary game special and the special game an entity unto itself in the marketplace and in the public eye.

What all of this means is that not only can a secondary market be found for some equipment, but that the games are infiltrating the home at an alarming rate. My question is just how much can a person play when he is surrounded by games from the minute he wakes up until he goes to sleep? Obviously, the coin-op market will always be unique in its scope and the difficulty of its games, but can saturation be far behind? And with it, will the weaker companies who are trying to get in on the bonanza be forced to rethink their objectives and the designs they bring to market?

Race to a conclusion

There is a necessary overlap that is going to have to have an effect, but on what level and to what extent remains to be seen. My personal feeling is that the end of the year will prove what it will take to make it in either sector. It is just that diminishing returns are going to have to come into play at some point in time, and the race seems well on its way to the ultimate conclusion.

If nothing else, the Consumer Electronics Show becomes that much more important as a gauge of the events and happenings, which all should try to attend or at least follow. This goes double for the many publications that are noticing the phenomenon and reporting on it.

There are, admittedly, some startling developments that are taking place technologically that just might offer some insights into the next generation of games. The result for those who like to forecast is that the future poses some impressive possibilities for all areas of application.

Until then, the boom is strong and growing even stronger day by day. Just wait and enjoy the overflow. It is there for the offering and taking as the coin-op industry bridges yet another plateau.

Need a shopping list? Check out the Oct. 1 Buyer's Guide.

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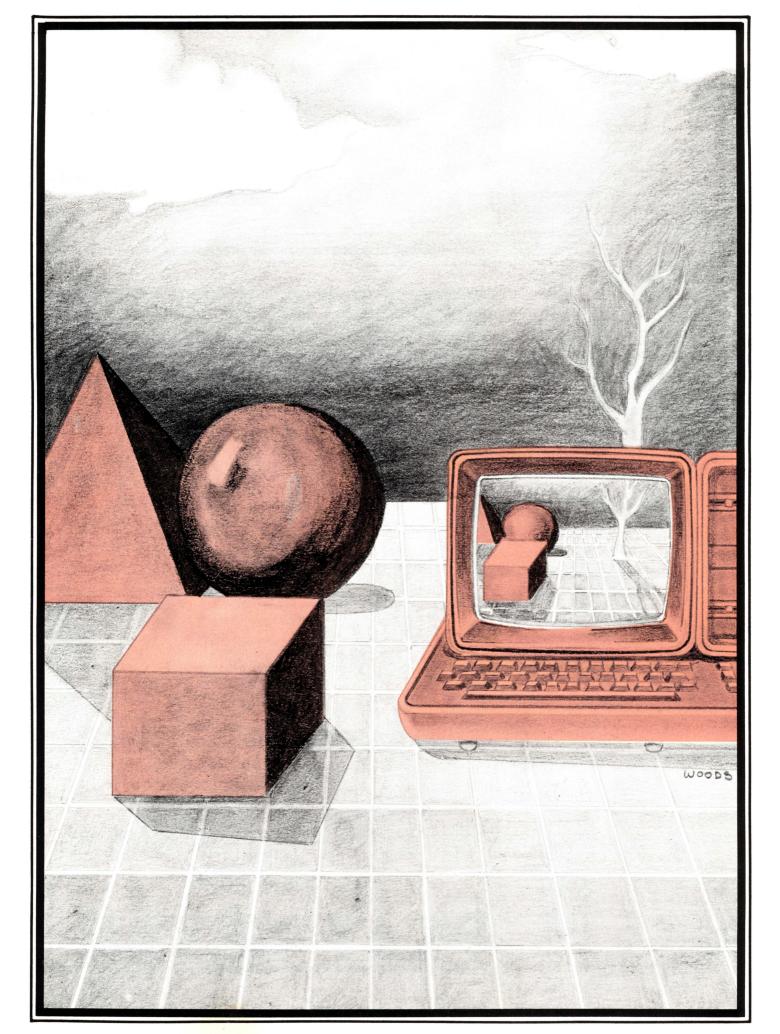
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MAGAZINE



Software systems for the operator

Everything you wanted to know, but were too confused to ask

By Mike Shaw

ypewriters and adding machines are easy to understand. When you hit certain keys, they print certain letters and numbers. When they don't work right, you can usually fix them yourself. And above all, they never do anything you don't make them do.

Computers seem to be just the opposite. You think you're calling up one piece of information and get something dreadfully different. You can become so hopelessly helpless when they aren't doing what you want them to do, you can't decide where to turn for help. And above all, you can make one little mistake and hours of hard work can be totally wiped out of the computer's memory. And one thing more, computers are damned expensive.

in streams of paper, behind piles of books that store information so confusing and difficult to track down that our records are virtually useless. Many of us even keep our records mentally, and, ironically, only a computer could tell us just how much time and money we have wasted or missed out on because of our inefficiency.

What the world has taught us about our games, it should also be teaching us about our manner of doing business. The efficiency a computer system can provide will enable us to conduct a more precise, profitable business. A computer can save loads of time—time that can be spent producing more income.

Recognizing the need for computer systems that can be used by operators to

ware to operators in several states.

Before we examine these programs, their features, and the companies offering them, it is best to point out certain factors to keep in mind throughout the rest of this article:

- 1. Some programs are more detailed than others and, hence, more expensive than the simpler ones.
- 2. Most programs are designed to be applicable to certain hardware, and, therefore, most operators are looking at the purchase of a computer along with a software program.
- 3. Without exception, these programs have all been developed within the last couple of years, so there is really no standard for this corner of the software industry.

Computer technology is at the root of our income these days.

So why even worry about a computer? Why not hang in there with the typewriters and adding machines, dance with the lady you brought, as they say, and save money and headaches?

Before we carry our disparaging remarks about computers too far, let's recognize the obvious.

Computer technology is at the root of our income these days. We know that the most attractive computer games are educing previously unimaginable amounts of quarters from players' pockets.

Still, although most of us have replaced our electro-mechanical games with computerized pieces, we have failed to make the same adaptations to our way of doing business. We continue to enmesh ourselves streamline their businesses, several companies are producing software programs. They are laid out specifically for the amusement operator and enable him to call up information about his business at the touch of a button or two. They can give the operator a view of his business he never knew existed, and in the end, enable him to make the best decisions about his routes. (A computer can even save a salary or two, lightening the work load and lessening the need for excessive staff.)

There are several companies that have developed software programs for game operators. Some have developed a program for a specific customer and now are ready to sell that program to others. A few are already successfully marketing soft-

4. An operator must select the computer system that will best suit his particular routes. He should consider cost, but maybe even more importantly, he must consider his business needs now and in the future. He should select a system that will be useful to him as the volume of his business increases.

CAME

William Morris of CAME Software Systems has been producing software programs for businessmen for more than two years. His operator program is in use by several operators in the United States and Canada

CAME's Fixed Asset Management Accounting System, says Morris, is very

The efficiency a computer system can provide will enable us to conduct a more precise, profitable business.

Software Spec Sheet

CAME Software Systems, Inc.

Reference

Machine name
Manufacturer name
Machine location and route
Maintenance at location—change location
name and/or address of location

Equipment

Change location for equipment
Equipment maintenance at location
Previous date and previous locations for
machines
Revenue on equipment

Route income reports by location and route

Sales

Produce sales report/update—closing monthly sales and pre-closing income report

Sales history—statistics by location, machine, and game type Life of machine and sales totals Return on investment report

Depreciation

Depreciation history

General

Update general ledger
Update general ledger file with new locations and routes
Post general ledger entries
Post checks/deposits
Produce bank reconciliation statement
Monthly P&L's by location, route, and consolidated
Monthly balance sheet
Monthly income statement

CIO Systems/Software

Route Information

Customer additions with hard copy contract printouts for the customer file Update contract information Customer delete function Inquire by customer name or number List a complete customer history report Contract expiration report based on number of days requested

Equipment

Add new machine information and assign machines to locations

Change machine information Remove machines from files

List machines by model number or list by product name

Move machines from the current location to a new location and record date in and date out

Inquiry or listing on all locations and the machines at the location including date in and date out

Display specific machine type (name of game) and all the locations that have that type

Sales

Display collection information including customer and operator split less minimum guarantees; machine averaging

Printing of financial history and 1099 capabilities

On-line display of collection earnings less than a requested amount

Collection report printing for route collection—report selected by route number and number of days (7-14-21 or 28)

Machine depreciation report, for tax purposes

Digital Innovators, Inc.

Location Information

Name, address, phone number of location
Name and phone number of owner
Location working hours
Name of collector
Day and week of collection
Machine commissions
Date contract expires
YTD totals
Remarks line for any additional information

Equipment

Lists all equipment in certain locations (up to 60 pieces) Date installed Machine serial number Shop number

Equipment History

Automatic file transfer of equipment upon its removal from a location, giving date removed, and name of machine Previous 10 machines removed

Sales

Location's collection broken down by machine

Date of last collection Previous collections

Review a certain game's performance in each location

List all such machines giving location names, each machine's average earnings, and amount of last collection for each piece

Determine a weekly minimum collection for each machine to produce list of substandard machines including each piece's location, average earnings, and period of time on location

Printout of annual sales by route, week by week

General

Print out every location's address on paper or adhesive labels Weekly route list by collector Cigarette and jukebox location lists

Innovative Management Consultants

Sales/Cost

Input data from floppy disk—each disk can contain 1000 machines; use as many disks as necessary

Print data—a permanent record of machine performance during any given time period

Add machines

Move machines from one location to another and record

Omit machines whenever you sell or trade equipment

Add revenues

Location codes contain percentage splits with location owners and flat rate service fees-review, add, or omit locations at any time

Administration cost-allocate general administrative expenses to each machine for accurate profit calculations—review or change the administrative cost when necessary

Sort option

By location

By machine number/name/type

By maximum/minimum return on investment

By maximum/minimum revenue

By maximum/minimum net profit

By location and type

Performance

Performance reports on every machine sorted

Location cost represents (1) the percentage split paid to a location owner, (2) any monthly service costs, and (3) depreciation expense for the period—all costs, including administrative costs, are adjusted to the period of time represented by the revenue

Net profit of the selected machine

Book value of the equipment

Annual ROI-return on investment for the machine selected

Enter—allows you to skip over individual machines and examine only the totals for those machines sorted

Additional Programs (in Basic Package)

Machine history—machine's historical performance, data is graphically plotted Collection report—list of all machines at any location

Data accumulation—posting of revenues (or profits)

Coin-count reconciliation—reconciles collected revenues with meter readings

Micro Computer Sales

Machine Data Base

Machine serial number Description Location list (up to 999) Cost of machines Current value (net book value) of machines

Period to date income of each machine Year to date income Income for last 12 periods (months) Vendor's name (up to 999) Machine type Date purchased Depreciation (fixed amount or percentage) Current earnings status (up or down and where located) Date of last income update Current meter reading Last meter reading

General

Remarks on machines

Validata

Trend Analysis

Weekly sales report (totals by category) Trend summary report (totals by category) Weekly and Y-T-D gross profit indicators Printout of annual sales (by route, weekly) Weekly sales comparisons (this week this year to same week last year)

Route Control and Management

Customer file report—(sorting of account records by route, day, stop sequence, machine #, and name)

Daily sales tickets

Salesperson's daily sales and cash report Monthly and consolidated accounts receivable statements

A/R aged trial balance (by route with page totals and grand totals)

Daily accounts receivable change-inbalance report

Individual account analysis

Machine commissions payable list (computed on any time frame)

Commissions tables (nine different methods for computing commissions)

Commission checkwriter (will combine several accounts on one check)

Commission check register Sales and cash receipts register Equipment sales/cost ratio report

Six months sales tracking report KEYSEARCH (TM)— design and print custom designed reports and sort them in virtually any order

Mailing labels (for any group of accounts)

Pavroll

Payroll transactions (hourly, salaried, commissioned) Employee listings Employee payroll information report (Q-T-D, Y-T-D earnings and deductions)

W-2 forms 941 quarterly tax report form Local tax report form State and local tax accumulation report

Payroll register Pay check writer system with check register

Inventory Control

Inventory list master "Staleage" control monitor (by route and product)

Purchase order to manufacturer Receiving report to accounts payable Load sheets (to truck from warehouse) 500 individual warehouse items Individual or multiple truck listings (200) Inventory turns and stock reports Credit memo (from truck to warehouse) Reconciliation of truck and warehouse

inventories (on any time interval)

Immediate Delivery

on

Nintendo/Donkey Kong
Venture Line/Looping
Gremlin/Turbo (cpt)
Gremlin/Zaxxon
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detailed and complex. It enables the operator to call up a lot of comparative information about his business and perform many required business functions. It includes, notably, "program error messages" that tell you what you or the machine did wrong and where you made the mistake.

Because of the system's complexity, the CAME program package includes a week's training at the company's Gainesville, Florida, home. The operator brings his business statistics with him, and the CAME programmers load that data into the system. The CAME system, then, is custom-built for the buyer. The program's features are applied to the data supplied by the operator?

The Fixed Asset Management Accounting System requires the accompaniment of a TRS-80, Model II, the Radio Shack microcomputer that can serve as a hardware vehicle for several of the programs designed for operators.

The Radio Shack TRS-80 Model II retails at approximately \$3,900. It features easy expandability and so can grow with business. Radio Shack offers several software programs which can be used to perform additional business functions for the operator.

The CAME system sells for \$4,000, including the week's training and data loading.

CIO Systems and Software

CIO Systems and Software's Video Games Manager is another recently developed amusement operator computer program. Specifically designed for a particular customer, it is, as yet, only in use at that one site.

The Seal Beach, California, firm developed the software system for the Family Amusement Corp. of Los Angeles to run on the North Star Horizon computer.

CIO says it is constantly altering its system, making additional functions available. The system can handle up to a thousand machines and deal with as many as 250 locations.

The system, including hardware, is currently priced at \$10,000.

Digital Innovators

Digital Innovators of Piscataway, New Jersey, was selling printed circuit boards when its executives decided to develop a software program for operators.

Digital Innovators' Coin Op Software Package was designed to be comprehensive but uncomplicated. The program is to be used exclusively with the Superfive computer and hard disc storage, also sold by the company. The system is currently in use at Automatic Music and Games in Ohio. There, the system keeps track of over 4,000 machines but is capable of handling up to 3,000 locations and 25,000 pieces.

The Superfive 64K hardware carries a price of \$6,995. The accompanying 200-character per second printer is \$1,695. The software program costs \$2,995.

Digital Innovators also offers optional

programs including payroll, accounts payable, accounts receivable, and general ledger at \$900 each.

Innovative Management Consultants

Charles Ross and Richard Priesmeyer of Innovative Management Consultants (IMC) have been offering their operator's software program since the 1981 Amusement Operators Expo and have sold their system in 35 states and five foreign countries.

The basic program is called the *Operator's Investment Analysis* and can be run on any model of the Radio Shack *TRS-80*. Ross suggests the *TRS-80* Model III with 32K and 2 disc drives which lists at about \$2,500. The program is designed to compute profitability and return on investment and provide different ways to call up information, such as by location, by machine type, or by machine name. The system includes a Joint Count Reconciliation Program and a Collection Report Program which combined do away with hand-written collection reports. The cost of the basic package is \$495.

In addition to IMC's basic program, the firm offers Radio Shack software that can be added to the package to enable the operator to keep a general ledger, an inventory and maintenance profile, a mailing list, a bookkeeping system, and perform word processing functions.

IMC also offers a portable system that can be used on a TRS-80 pocket computer and a profile analysis program for proposed locations. The Portable Computer system sells for \$235, and the Profit Analysis program is just \$50.

Another computer service offered by IMC is Operator's Location Prediction. This software system is developed from demographic and operating characteristics data compiled by the operator from several of his existing locations. This data is analyzed according to correlation and multiple regression factors by IMC. It then returns a statistical estimate of profitability to the operator in the form of a program that produces sales estimates for any proposed location and provides minimum, maximum, and most likely profit and loss statements along with an annualized return on investment. The cost of the analysis and resultant program is \$1,000.

IMC provides instructional booklets and tapes on installation and operation, and offers telephone assistance. In person installation and/or consulting service is available at a \$300 per day rate.

MicroComputer Sales

Another firm that's selling software that employs the Radio Shack TRS-80 is MicroComputer Sales of Fayetteville, North Carolina. While the firm widely markets a variety of software, its (amusement) operator program is in use at only Tar Heel Amusements in Fayetteville. It has been helping that firm organize its business for more than a year.

The MicroComputer Sales amusement

operator's program offers a data base on machines that employs 28 items that can be broken down into twelve periods (or months). The program offers a less than overly detailed way to keep up with what could be, if necessary, a large number of machines for \$795.

Validata

Validata, a Montgomery, Alabama, corporation, offers a complete hardware software package system it calls Route Sail. The system is used in the eastern half of the U.S., from Kansas to Pennsylvania.

The relationship between the customer and this firm is a continuous one, because the software is leased to the client rather than sold to him.

The RouteSail package comes in three models-the 1800, 2800, and 3800. The higher model numbers are appropriate for larger-sized businesses. The Model 1800 is designed for up to nine routes, the 2800 for up to fifteen routes, the 3800 for more than fifteen routes

Recognizing that the size of an operator's business can change, Validata offers the original purchaser of the 1800 the opportunity to trade up to a 2800 or 3800 for a period of three years from date of purchase at a fifteen percent decline in value per year.

As a leasee of RouteSail software, an operator pays a monthly license fee to use the programs. Subsequently he receives new RouteSail programs, updates, or enhancements to the software he rents, as well as annual payroll programs that reflect payroll tax changes.

Validata offers a ninety day warranty or the opportunity to purchase an extended warranty which guarantees replacement or repair of disabled hardware components within 24 hours of an operator's call.

Validata also offers Remote Diagnostics on both hardware and software wherein Validata technicians take to the phones to solve computer problems.

All RouteSail systems include a standard telephone communicatons unit for Remote Diagnostics use.

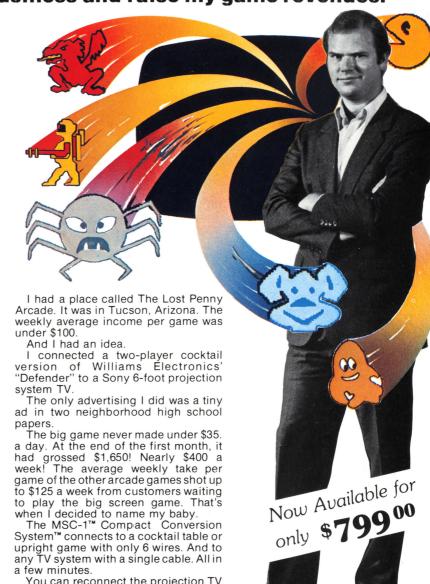
The RouteSail 1800 costs \$8,900. The hardware includes the Advantage computer, a 150-character per second printer, and three software programs: Sales Trend Analysis, Route Mangement-Accounts Receivable, and Payroll. Inventory Control and Analysis and General Ledger programs are available at \$1098.90 each. Installation is an additional \$300.

The RouteSail 2800 features 32K twin disk drive hardware and includes all software programs. It lists for \$13,800 with \$450 added for delivery and installation.

The RouteSail 3800 offers everything the 2800 does plus the additional capacity available with its hardware system, the 64K twin disk drive computer. Delivery and installation on the 3800 is \$750.

The 2800 and 3800 include a Client Asset Depreciation program which figures depreciation in three ways: by declining balance, sum of the year's digits, or straight line.

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PAC-ATTACK! PAC-ATTACK!

By Randy Fromm



The Pac-Man Syndrome struck at the World's Fair! T-shirts, pillows, a Pac-Man arcade, and Pac-Man himself were inescapable sights for Play Meter columnist Randy Fromm.

had just finished teaching a session of the Arcade School in Atlanta, Ga. During the entire week of the school, the evening news had been more or less preoccupied with final preparations for the opening day of the 1982 World's Fair in Knoxville, Tenn. From what I could discern, the exposition seemed like a pretty neat place to visit.

With the opening day of the fair coincident with the last day of class and the discovery that Knoxville was only 200 miles due north, I made tracks for the World's Fair right after graduation. I didn't make it in time to be there for opening day, but I was there bright and early the morning of Day Two!

So there I was. It was kind of an impromptu mini-vacation in beautiful Knoxville, Tenn., and I was going to forget all about work and enjoy myself.

Everything was going great for the first few hours. The exhibits were well presented, informative (the theme of the expo is "Energy"), and generally fun to attend. But my thoughts soon turned to food as the morning passed in favor of the afternoon.

I headed for the fast-food area (no time to waste) and that's where I first noticed it. The sign that advertised the pizza stand sure looked familiar: a yellow pizza with one, wedge-shaped slice removed that looked a lot like *Pac-Man*! Even the letters that formed the word "Pizza" were extraordinarily similar to the type used by Midway in its *Pac-Man* logo.

"Chalk it up to coincidence," I thought. "Stop thinking about games and enjoy yourself."

I grabbed a cut of pizza and returned to the midway.

I was in front of the Australia pavilion when the Pac-Man Syndrome struck again. This time it was a young boy wearing a blue, "Pac-Man Fever" T-shirt that initiated my second "Pac Attack."

Pac-Man thoughts

My mind drifted off again to thoughts of the last lab session in Atlanta where I had used a *Pac-Man* to demonstrate the symptoms of various types of monitor failures.

But once again, I pushed thoughts of work aside and moved on to another exhibit. The technology building held a wide variety of displays and exhibits. Among them were the world's largest miniature circus (the 20-year project of a single man!) and a full scale mock-up of a turn-of-the-century coal mine in West Virginia.

Turning the corner, I walked toward the next display. I had a hard time believing what came into view. It was a Pac-Man store! I mean a shop that sells nothing but items that are shaped like Pac-Man, the ghost monsters, or are emblazoned with the Pac-Man logo and images of Pac-Man!

You name it, and they had it. Pac-Man shirts, mugs, posters, pins, pillows, stickers, Pac-Man Putty (Silly Putty in a different package), Pac-Man souvenir miniature license plates, Pac-Man tote bags, and even a nifty, kid-sized Pac-Man sleeping bag!

There was no escaping it! The Pac-Man syndrome had struck again! I found out later that this was just one of four Pac-Man stores at the fair. The Pac stores, along with the only game room at the expo, are operated under contract with the World's Fair by Video Expo Inc.

The Pittsburg-based corporation



operates more than 500 games at the "Video Expo" game room in the fun zone area of the fair.

One year operation

"We made the first inquiry about a year ago," said Video Expo's Lee Goldberg when asked about the lead time involved in putting the operation together.

Video Expo also operates a remotecontrolled robot attraction that allows participants to battle it out with each other at \$2 per play. The winner of each battle gets a souvenir badge proclaiming him to be robot warrior champion.

On the way to the beer garden to relax before seeing the rest of the exhibits, I had the distinct feeling that I was being followed. When I turned to look, it all made perfect sense. The Pac-Man syndrome had taken control of the entire World's Fair. I was being followed by... Pac-Man! With my camera at the ready, I turned just in time to snap a photo of Pac trying to score a date with a local, all women, punk rock band.

I headed out to see the remaining exhibits before it was time to return to the fun zone around closing time. The fun zone was the best place to view the nightly fireworks display. The show lasted about 20 minutes, concluding with a spectacular finale!

As I started to walk toward the exit gate, I passed by a young couple pushing a stroller. The little girl in the stroller couldn't have been more than 2 or $2\frac{1}{2}$ years old. She turned around and waved back at the fun zone as her parents pushed her toward the exit.

"Bye-bye, Pac-Man," she said. If only she knew...





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Video rules the World's Fair

By Mike Shaw

here are a million things you can miss at the World's Fair in Knoxville, Tenn. A few days around the fairgrounds will only reveal the superficialities of what the participating countries want people to know about their histories. Only a longer stay and a more pervasive look uncovers interesting little entries like solar powered telephone booths.

But even the most cursory run through the fair will reveal that the 1982 World Exposition is controlled by video screens. From the moment a visitor steps inside the fairgrounds, he is directed, informed, and entertained at every stop by video screens. All the expositions use video screens to explain their displays; some exhibitors have set up walls of 25 or even more video screens to present their stories with special, dramatic audio/visual effects.

It is noteworthy that visitors, so conditioned now to getting information from TV screens, give little but a passing glance to the most grand and ornate displays, and then hover around a small video screen to see a film of the British countryside or watch a cartoon about French energy problems.

If video rules the World's Fair, then it is only natural that video games are some of the busiest entertainers on the grounds. And executives of the firm that landed the arcade contract for the Knoxville extravaganza are beaming with pleasure at their presence there.

"Everybody wants to be a part of history; just being part of this is worth doing it," said Dan Kail, who, along with his brother Bob, heads up Video Expo, the Pittsburg firm that negotiated its way into some five game rooms scattered around the fairgrounds. Those locations include two Pac-Man stores that offer literally hundreds of items displaying the *Pac-Man* logo.

In all, the five locations contain 500 games, a major move for two brothers whose previous experience in the industry was running a pool hall in Pittsburg.

That fact does not derogate their ability to run an effective operation. Dan and Bob Kail are noteworthy examples of the young, intelligent, energetic businessmen



The 1982 World's Fair: The Sunsphere looms high above the grounds and offers a view of the entire fair.



Pittsburg's Video Expo negotiated its way into the arcade contract for the World's Fair.

who are choosing this industry as their profession.

Won with help

They won the arcade contract for the World's Fair because, according to Kail, they employed a brilliant negotiator, attorney Lee Goldberg, to maneuver the company into the winner's circle over 20 other hopefuls. Most, if not all the hopefuls, had a great deal more experience with video game concessions than Video Expo.

When *Play Meter* visited Video Expo, we fought our way through hords of youngsters gathered in front of the games to find Dan Kail.

Kail was not anxious to overplay any profits Video Expo might be taking back to Pittsburg.

"The games are averaging about \$30 to \$35 a day, but everybody gets a piece of the action," he conjectured, pointing out that the Knoxville International Energy Exposition (administrators of the fair), the city of Knoxville, and others involved in conducting the exposition are getting a chunk of each quarter.

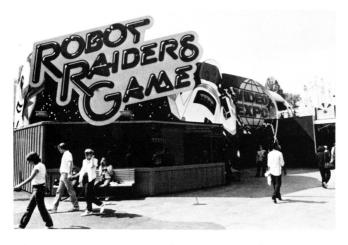
"I think we could do really well if we had about three months more," he noted lamenting the six-month life span of his operation.

Although Video Expo did not encounter many of the typical problems operators stumble over in opening arcades, the firm did confront one massive problem inherent in this type of situation—that is, what to do with 500 video games when the fair closes down.

Find enough Pac-Man games

"We never would have gotten into this without an agreement from Jerry Marcus (Empire Distributing) that he would buy the games back at the end of the fair," Kail said. "And he has also been helpful in taking back games that aren't doing well. But the most difficult task to accomplish was gathering all the *Pac-Man* and *Ms. Pac-Man* games we needed to stock the arcades and put in the Pac-Man stores where the only games are of the *Pac-Man* variety."

Video Expo is making a vigorous entry into the game industry. It has helped



Eight players engage their robots in laser warfare in this life sized arena game.



Rows of games sit under rows of the flags of nations participating in the international exposition.

develop and will be the exclusive marketing arm for a new robot action game, Robot Raiders, the prototype in action in one of the game rooms at the fair.

Dan Louglin, Video Expo general manager, explained the extravagant setup that is drawing players at \$1.50 per play.

"Each of eight players stand at a console and controls the movement of his robot within a 15 foot semi-circle. The robots battle each other with laser guns, and points are scored according to the number and quality of hits scored."

Loughlin pointed out that the game is timed, the time frame of the contest is controlled by the operator, and that Video Expo has been running the game for approximately two minutes at peak

interest times and up to three minutes when crowds are not clamoring to get into the game arena.

So if the *Pac-Mans* don't get you, the *Robot Raiders* will, and the action is an arcade operator's dream come true at the World's Fair.

Kids want to stay

"People are having a hard time getting their children out of the arcades," Kail admitted and smiled. "We hear them saying: 'We didn't come here to play these games all day." But apparently, sometimes the kids win and stay while their parents go off to peer into other video screens for more video entertainment.

The Pac-Man entries, Defender, and

Turbo are attracting the most quarters at the World's Fair, and Kail noted he has not had much luck with pins—the older pins get more play than the new ones, he said.

"These crowds are different from what you might expect at a typical arcade. They don't want to take the time to experiment with a new game like the hardcore arcade player who frequents the same game room might. They play what they know, what they're already familiar with, and then move on."

They might move on, but there always seem to be plenty of replacements. The arcades are some of the busiest attractions at the fair, and Kail is proud that Video Expo was chosen to provide the first video games ever included in a World's Fair.



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The Carnival World robot greets players as they enter the world's most spacious game room.

noxville, Tenn., is taking itself seriously these days. As the site of the six-month 1982 World's Fair, the city is brimming with downtown hopefuls who predict steady growth for more than a decade into the future. And to substantiate their projections, they point to a continuous increase in tourism in each of the years that has followed the 1974

World's Fair in Spokane, Wash.

Indeed, Knoxville is an alluring kind of place. It is far enough south to escape the horrors of Yankee winters but not deep enough to be cursed with summers that steam up streets in cities like Houston and New Orleans.

And it is neighbor to the glorious Smokey Mountains where historic paths over rolling hills lead to waterfalls that gently cascade into deep gorges. The city is clean and comfortable, and the citizens are friendly in a typical mid-American, midsized city style.

Several of Knoxville's citizens are cautious though. Some have already been disappointed. Knoxville is a "fer piece" from Spokane. And they say just because three major hotel chains deposited \$20,000,000 in rooms downtown, that doesn't mean the tourists will use them after the fair is over.

Some dashed expectations are already apparent at what is being touted by its owners as the world's largest arcade. The preopening publicity for Carnival World Family Casino, a massive collection of games in downtown Knoxville just outside the fair gates, has not been lived up to, and there is little chance that it will be.

Craig Davis is just 22, but his idea to conduct the world's largest arcade was embraced by a couple of more seasoned businessmen who gave Davis the encouragement and the money to pursue his project.

Potential 700 games

Davis's father and a Carmel, Ind., neighbor supported a quarter million dollar effort to revitalize a vacated Kress department store in the Knoxville down-

World's Fair inspires world's largest arcade

By Mike Shaw

town shopping district. About 24,000 square feet of floor space was prepared to house as many as 700 games. The site was to include the first eight-player *Robot Wars* game from Promotional Concepts of Atlanta. And between 2,000 and 3,000 players a day were expected to pour through the doors.

None of this has come to fruition. Davis said that community support has not yet been sufficient to increase the number of games at Carnival World beyond the slightly more than 300 machines that sit inside the cavernous arena. The robots haven't figured out how to carry on laser warfare between eight players yet without breaking down. Even a planned pizza restaurant has been stymied leaving a gaping, gutted eyesore in the arcade's bargain basement.

The World's Fair has produced no player glut.

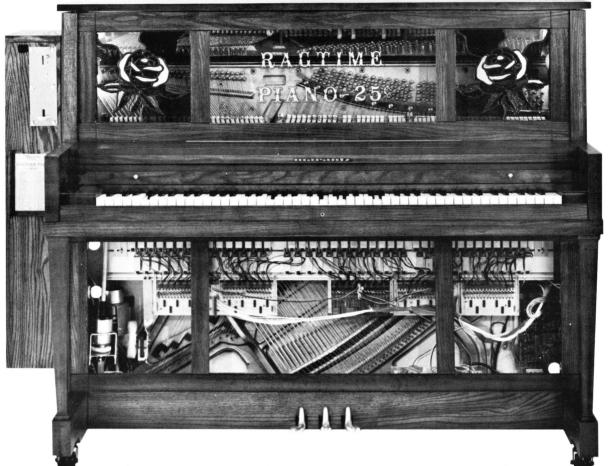
Even if reality is not as grandiose as Craig Davis planned it to be, he can be congratulated on an early grasp on the theory of the imperfect. Three hundred machines are nothing to sneeze at, and the kids do come to play even though most of them do speak with a Knoxville accent.

Although Sugar Ray Leonard and his son found their way to Carnival World the same June weekend that *Play Meter* visited there, most out-of-towners are satisfied to play in one of the five arcade areas inside the fair.

Carnival World, at half its planned size, is an impressive layout to any video enthusiast. The industry's top games are all there—no second line or grade "B" machines are used as fillers—and kids, although there were several hundred there the Saturday afternoon we visited Carnival World, had no problem getting to their favorite games.



The change and observation booth is positioned at the back of the main arcade room and at the steps leading to the arcade's "bargain basement." Carnival World managers stay in the booth during their shifts and keep an eye on the action, while a uniformed policeman strolls through the aisles.



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Videos are alligned back-to-back in long rows at Carnival World. The room is so big that there is still plenty of aisle space between rows.



Even a busy Saturday afternoon produced little or no action on Carnival World's lonely pins.

The franchise rush

The Davises are not fretting over unfulfilled dreams. Already, just by opening Carnival World, they have doubled the size of what was a moderate route business in and around Indianapolis, and they are looking to the future with a great deal of enthusiasm.

"This industry does not have a lot of order to it yet," philosophized Davis's father, Chuck. "But untapped opportunities are plentiful. A lot of fortunes will be made in this industry in the next few years by people who have good business sense."

Good business sense can be measured in terms of volume, Chuck Davis seemed to say—lots of plays on lots of games any time of the day or night. Carnival World is open around the clock, issuing tokens at a rate of five for \$1 during the day and seven for \$1 through the night.

"As this industry develops and becomes more competitive," he said, "the operators with 20, 30, or 40 game arcades will be forced out of business. To make it, you need to have at least 200 games in action in a well run, orderly atmosphere."

The elder Davis does not hold court with

those who feel the industry's hot streak has peeked.

"This industry is just in its infant stage," he said. "The next five years will be phenomenal. That will bring better businessmen into the industry, and they will help stabilize it."

He speaks enthusiastically in light of the response he has gotten to his idea to turn Carnival World into a franchise operation. He believes there will be more than 100 Carnival World game room/pizza parlor stores spread over the country by 1984. Animated characters and video games are





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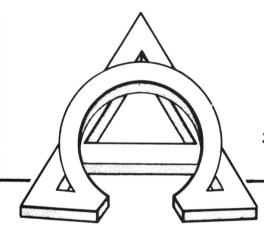
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The restaurant to be is now just a gaping eye-sore and a potential trouble spot at the back of Carnival World's "bargain basement."



The Carnival World snack bar, which serves food, soft drinks, and beer, is separated from the main floor arcade by wooden railings. No food or drink is allowed near the games.

getting to be campanions as common as baseball games and hot dogs, and the elder Davis said he has had no trouble locating investors interested in Carnival World franchises.

'They found us'

"They have found us. We didn't have to campaign to contact interested investors."

Apparently financial experts believe his approach is good enough for them. "The banks were anxious to get into this," he told *Play Meter*.

Carnival World Family Casinos, which

already has company-owned openings nearing in Indianapolis and New Orleans and at least nine investors signed up for franchises, characterizes its operation as differing from other arcade/pizza businesses by offering more entertainment for parents. The Davises are encouraging adult patronage in Knoxville by giving away a 1982 Pontiac Trans Am and by serving beer within the confines of the restaurant part of the arcade.

If the Davis family's dream of a national pizza/arcade franchise operation is appealing to bankers and private investors

alike, it is not surprising. Since that path has been cleared by Pizza Time Theatres, a deluge of others have followed Chuck E. Cheese into the limelight. ShowBiz franchisers have been getting to the bank with regularity of late, Castle Entertainment is singing a happy song to the animated strummings of its Tex Critter characters, and there is even a Fuzzy Wuzzy Wizzerd or so slicing up pizzas this summer. So who's to doubt the future of a clown standing atop a circus tent holding a pizza in one hand and rubbing his tummy with the other?

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Measuring the fit of the summer's collection

vents keep happening with summer in full bloom. Various legal battles and discussions of game kits to speed up or modify play have become almost commonplace, as business continues to be one of prosperity for all. It is a tribute to the industry that it can weather the storms and still stay moderately dry despite those who want to wash away much of the success.

From my perspective, the challenges have yet to be faced head-on and put to rest. But in the meantime, there is excitement and anticipation of the coming evolutions.

Many of the developments and indications of the future are already taking shape with positive reaction to such ventures as Pizza Time. Parallel this with the new level of game play and such inspired efforts as Bally's *Tron*, which ties in with a major motion picture and brings product awareness to yet another level. Then there is the crossover of games for home use and the buildup continues with the industry in many ways becoming far more sophisticated and multidimensional.

The changes are coming rapidly affecting the basic rules that have applied for so long. There are new ideas and new thinkers who have invaded the industry, and the old ways have fallen away without even a whimper. Put in its proper place, it's amazing when you stop to think about the years when everything remained fairly much the same. But in its own way, video changed all that when it finally broke away from the mold

and began to gather steam.

In many ways, it's like the discovery of the overnight acting sensation who has been at his craft for years and years but is propelled into the spotlight for a single effort. So it is with this 50+ year old industry that is experiencing a rebirth and good fortune far beyond the dreams of those who go back to the old days.

Interestingly, the very essence of game design has also undergone an evolution of sorts, with creative talent being held at a premium and negotiations transpiring behind closed doors as manufacturers attempt to shelter their own while also looking toward new avenues to tap. And just as things are becoming more solidified, so too are they expanding to encompass outside input from a new legion of individuals who find computers and the associated technology to be second nature to them. All in all, the result can only mean more exciting and varied equipment that will further broaden the potential of the industry as it continues to grow and thrive.

Taito's Wild Western

With an enviable track record behind it, Taito is hitting with a number of games for the summer season; although one in particular caught my eye because I grew up with Saturday morning westerns of Hopalong Cassidy, Gene Autry, Roy Rogers, and all the rest. And now that same action comes to



Wild Western



Tazz-Mania



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PLAY: The chase is on with players having dual control of a joystick and knob for positioning the good guy (a sheriff, of course) and aiming his gun as he pursues a gang of bandits who are separated by a chugging locomotive. The maneuverability built into the play allows for the sheriff to cross over the tracks. lag behind the train, speed ahead, or even jump onto the train in an attempt to wipe out one band and face another. All of this is obviously being done while the player attempts to keep from getting shot.

But there are also other obstacles to be avoided such as rocks. cacti, a fort, bridge, and the train. A nice touch to the game happens when a band of outlaws has been eliminated: the player has a chance for bonus points when the action turns to a horse throwing a silver dollar up into the air—it's one shot to collect before returning to the old frontier.

ANALYSIS: Wild Western is your basic shoot-'em-up that offers a total thematic setting and definite play action strategy. The dimensionality of the visual content only tends to enhance the entire effect, while providing more player involvement with a situation in which everyone is familiar. Rather than a predetermined maze or field to navigate around and through, the player has an opportunity to be creative and more into the game in order to establish some type of play strategy. This intangible alone helps to raise the repetitive nature of the visual to another level that is certain to be appealing. There are also one- or twoplayer capabilities and adjustable settings for the number of sheriffs a player gets.

GRAPHICS: The game by its theme alone is distinctive, but the execution gets high marks for its depth and realistic colors of the old prairie. Add to this some very complementary sound effects complete with galloping hooves and a rambling locomotive, not to mention other audio details and Wild Western

PROS & CONS: The first thing that hits me about Taito and this effort as well as Alpine Ski, is that it's broadening the scope of coin-op aesthetically, with the end presentation seemingly closer to a home system such as Mattel's Intellivision that has been acclaimed for its graphics on game cartridges.

Here, with Wild Western the player once again gets a break from a space theme with action that allows some type of perceived storyline as well as player interaction in deciding his own destiny. It's an effective approach and truly provides more entertainment value for the money than just playing video games where the action takes place in some defined twilight zone that can tend to depersonalize the activity and fantasy involvement of players.

Add to this the popularity of Sega's Turbo and Zaxxon, and it's not too difficult to sense what direction ahead seems to hold. The dimensionality becomes that much more important and vital to the entire game concept.

RATING: The appeal and eventual impact of Wild Western hinges on players wanting to return to those days of the wideopen prairie for some shoot-'em-up action. This may mean a more male-oriented audience without trying to sound too chauvinistic. I'll also bet that Taito might do well with this if someone shows some interest for the home game market. Since it's a solid game with a theme that so happens to be a personal favorite, let's go with a ###1/4 and see what the sharpshooters out there think.

Stern's Tazz-Mania

Just when you think you've seen Stern's newest, there's another one hitting as the company seems to have gone into overdrive with a wealth of models and diverse themes. This newest effort is no exception, marked by rapid action and the need for quick reflexes.

PLAY: For those who follow cartoons, not the new space-age, superhero variety, but the old classics, one incredible talent who really has no peer for sheer versatility alone, is Mel Blanc (Bugs



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Bunny, Daffy Duck, Road Runner, and many, many more). Well, one of his little additions to an already extensive repertoire is the ferocious Tazzmanian Devil, which might well be the inspiration for this video game's starring character.

Players have a joystick, a fire button, and a zapper button for controlling the little green hero against an array of enemies that include hoppers, nasties, sickles, caterpillars which can turn into butterflys, and cyclotrons.

The basic action is for players to destroy all the surrounding enemies in a room where the walls begin to close in. Once everything's wiped out, the player can escape to another room for more of the same with the action speeding up progressively for a total of 19 different levels. In addition, Tazz-Mania offers a bonus room every third room, where players can gain extra points and zappers (special bombs that wipe out everything in sight) by going after an array of numbers dotting the screen. ANALYSIS: On the surface, the action tends to be reminiscent of Robotron with a variety of enemies converging on the main character. But the more than subtle differences of closing walls and entries to another room, give Tazz-Mania an additional dimension whereby the essential strategy is to survive and then escape, with the latter not a given, but something the player must navigate himself. It all adds up to fast-paced action that should really test players' reactions.

All the characters and rooms have special personalities and features that players should be able to pick up on after they've had a chance to get comfortable with the game. Stern is even pointing out some of these nuances in its trade advertising. **GRAPHICS:** The visual treatment is colorful and fairly detailed with the cabinet carrying through on the graphics and all of it enhanced by some solid-sound effects. It's an attractive package where one can sense the attention paid to detail in making all the screen characters distinct rather than just brightly colored forms or shapes.

PROS & CONS: In looking at the controls as they relate to the action on screen, and going back again to Robotron, I for one have more success with the joystick/button combo versus the joystick/joystick which, when I reviewed the Williams's stellar performer, I equated with trying to rub my stomach and pat my head at the same time.

Beside this, there's a brief breather here when manuevering little Tazz to the next room and level of play.

Another touch that I think is nice is the additional element of a challenge within a challenge—not only do players have to destroy all the creatures attacking them, but they have to time their assault without forgetting the closing walls. It's an extra that tests players just a bit more in their attempt to master the

RATING: Stern really has churned them out, which might just be a reflection of the booming demand for equipment, or just the hope of trying to find one dominant piece that will have the legs to go the distance. Unto itself, Tazz-Mania has a great deal of merit, but whether it's distinctive enough to set it apart from the competition is a factor that makes it a ##3/4, but it's well worth the investment for operators wanting to round out the selection of games on location.

Venture Line's Looping

Sometimes, what might appear as an ordinary game is suddenly noticed as something more. At the AOE this particular effort garnered a great deal of attention because it did offer a variation on a theme, a novel approach that tended to set it

PLAY: Although the action is horizontal, it's also up and down and backwards with a player joystick control and two buttons (one for firing and the other for speed). The basic strategy for the player is to take off in his little plane and try to bomb targets below. He also trys to hit killer balloons in the air while traveling in Adventure Land before the setting shifts to a Maze Tunnel that looks a lot like the plumbing in some New York

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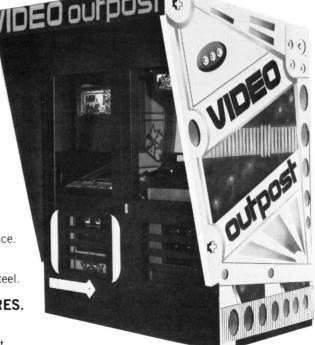
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City co-ops.

Where the element of skill comes in is that the controls for the plane allows for loops in navigation rather than just regular up and down or side to side flying. This subtlety alone makes *Looping* that much more distinctive and different from many of the other 'flying' games in the market.

ANALYSIS: The city outline lies on the screen with definite targets to aim for such as the initial tunnel gate that forces a player to literally soar up into the sky and then dive bomb down to wipe away the protective blocks before being able to score a direct hit to open an entry for the next screen setting. In addition, there are points to be made by hitting those balloons. The need and challenge is to really try to master the control panel and not the depth or intricacy of the screen graphics.

GRAPHICS: There is a decent array of colors and detail work, although there are really only two main settings during the course of play. However, the movement of the plane within all this is an embellishment and the utilization of good sound effects and speech tends to amplify *Looping* and its overall impact

PROS & CONS: On initial inspection, I had some problems with *Looping* because of its controls, and the fact that the joystick forces players to move up when they want to go down and down when they want to go up.

The normal response, at least for me, was the opposite with the direction of my hand movement tending to be the same direction I wanted for my airplane. There was also the need to isolate my movement within well-defined parameters so as to hit the approprite targets before moving on, such as that tunnel gate. It was a restriction that made it very difficult for me to get beyond a certain point or progress proportionately as positive reinforcement with repeated play. I seemed to get locked into a set boundary and didn't appreciably gain markedly with practice.

Whether other players will suffer the same fate and respond negatively remains to be seen, but the feeling is that once the novelty of the plane's movement wears off, there really isn't that much else to sustain repeated play. Maybe I just wanted more to be happening around me on the screen or at least more variation from one stage to the next.

RATING: Looping is the newest attraction in Venture Line's change-a-game series, and the novelty of what they have achieved with the movement of its main attraction—the plane—shouldn't be overlooked. But the ## which is being given here comes more from the question of whether or not this nuance alone can keep attracting players back after the initial curiosity wears away.

And so it goes for the month of August. Already some of the future trends can be assumed given the season's big box-office extravaganzas and those models that have stood the test of time throughout the calendar year up to, at least this point in 1982. We're getting a good crossbreed of equipment which, even in its diversity, is once again narrowing the scope of what we'll likely see for probably the next six months.

As for specific games, the impact of the home market blitz with its cartridge, hand-held, table-top, and any other possible format renditions of known, past arcade winners—will result in a necessary by-product surge in the earnings of what might well be considered machines past their prime.

But the increased promotion and awareness of *Donkey Kong*, *Ms. Pac-Man*, *Berzerk*, *Defender*, and so many others, can only bring a familiarity to those discovers of arcade equipment who tend to gravitate to the known or at least recognizeable commodity before venturing to the other games which will have to gain the transient crowd by word of mouth alone.

In the coming months, we'll be able to begin to gauge the results and might find the future marketing and success of games raised to a still newer artform. But until we can once again continue the saga and the surrounding developments, as always, I wish you all to be well and prosper.

Using time effectively

By Joseph Arkin, M.B.A.

ave you ever had the feeling that the more you work, the less is being accomplished?

Yes, it's perfectly possible to get on a treadmill and waste that precious asset called TIME, by not properly utilizing it.

You can waste time and find yourself facing frightening deadlines, feel tension building, and constantly be under pressure, all because you don't practice something called "time-management."

Good intentions won't set you straight. What is needed is a program, yes, a written program charting your workday.

1. Perhaps the most significant simple device is the use of a daily "to do" listing. As you're doing today's work and something comes to mind, jot it down on a piece

of paper and head it "things to do" or simply "to do."

These are the things that have to be done tomorrow or even the day after tomorrow.

- 2. At the start of each day, put a red check mark next to those things that must be done—i.e., payment of certain bills, depositing taxes for the previous month, writing that special letter.
- 3. Before the mail arrives giving you more work to do, start doing those things with the check mark. As you perform each task or clear the item by delegating it to someone else, (But in the anxiety to rid yourself of the chore, make sure that you give specific instructions as to what has to be done.) cross out the item.

Add items to the list as they come to your attention.

- 4. After taking care of the most important items, review your mail for duties that require your immediate attention.
- 5. Stop. Recharge your batteries by taking a break in your routine. Turn to a news program on your radio, then switch to soft, soothing music to get over the trauma of listening to the state of the country and the world's affairs.
- 6. Return to your "to do" list, and continue to do those chores that result in item after item being crossed out.
- 7. At the end of the day, review the list. Anything with a red check should have been crossed out. Other items should be reviewed. Do they really have to be done? If not, cross them off, or better still, palm them off to someone else. After all, that is

Good intentions won't set you straight. What is needed is...a written program charting your workday.

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why you're in a managerial capacity.

8. Start a new "to do" list with the items not crossed out and with items added during the day. Put in a handy place to start the next day.

Stop interruptions

As the manager in your firm, or being part of the management team, you have to constantly make decisions. One decision you have to make is what to do about telephone interruptions and staff or visitors coming to your office.

A priority has to be established. If you answer each and every phone call coming your way, you may not get past the first or second item on the "to do" list. Set up a system of having the person answering the phone screen your calls. After a while, only those requiring you will interrupt you. Other calls can be channeled to other persons in your firm, and still others requiring your attention can be handled by people calling back during a break in your work routine.

Employees should not needlessly interrupt you. Establish a set of guidelines—one where you are available and maintain personal contact with employees, but one

freeing you from contacts that should be handled by others.

One curse in the business community is the business meeting. Many may be invited, but in reality, only certain persons are really needed. If you must attend, and in fact are to conduct the meeting, arrange an agenda. Set a time limit on the length of the meeting, and get back to your desk as soon as possible.

One trick or device to prevent being stuck with long meetings is to schedule them just before the lunch hour or just before closing time. Those who talk endlessly or those who ask frivolous questions because they want to show you something will usually take the hint and break at the right time.

Memos vs. letters

Learn to use short memos when appropriate. You can have printed three-part forms that can be used for short notes instead of dictating letters.

Cut down on correspondence as much as you can by using telephones, even for long distance. Management consultants claim that it costs about \$7.11 to send a letter, and it may be cheaper to phone. And, by

using discount phone services, you'll come out ahead dollar-wise and save plenty of that valuable commodity—time.

At the end of each day, ask yourself if you're satisfied that you didn't waste too much time. The foregoing is not going to impose a routine that is work and only work, from the minute of coming to work to the moment of leaving. But, it is a plan to discipline yourself to properly allocate your time more carefully and be able to leave all work at the office.

More importantly, it will leave you time to spend with your family and friends and time for leisure activities.

Making the most of time is part of a regimen. If you really want to spend time with your family and friends, learn a few tricks. If you commute to work by train, read reports and trade magazines en route. If you travel to work by car, listen to business tapes for instructional purposes or even dictate some of your letters.

It has often been said that many a good sale has been made on the golf course, at a local meeting of a charity or fraternal organization, or simply in mixing with people. Get yourself out of the office, and you will have this extra time.

One trick or device to prevent being stuck with long meetings is to schedule them just before lunch hour...



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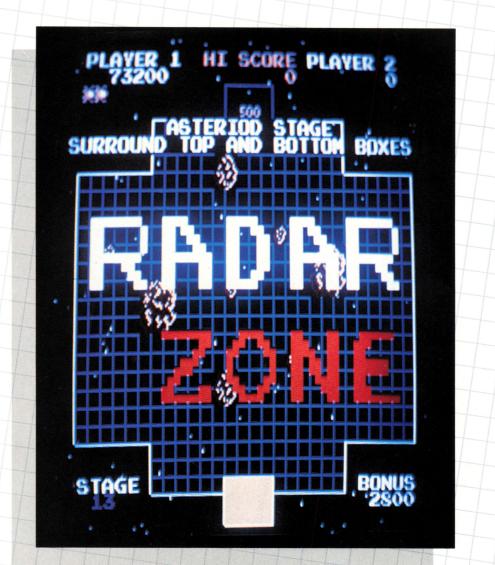
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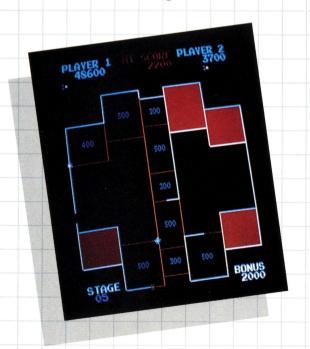




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Technical Topics

POWER SUPPLY DESIGN COURSE

Lesson 1: Systems Analysis

Programmed Test

Editor's Note: The material below is a serialization of the Kurz Kasch correspondence course for electronics, designed specifically for the coin-operated amusement industry. This course is copyrighted and owned by Kurz Kasch of Dayton, Ohio, and its reprinting is being sponsored jointly by Kurz Kasch and Play Meter magazine. This material is authorized for publication exclusively in Play Meter magazine.

INSTRUCTIONS: The purpose of this test is to guide you step-by-step thru actual circuit design problems. Also, many of these tests will provide you with additional design technique. Most important, these tests will provide you with a gauge to establish your degree of understanding of the material covered in the text. The test is programmed. Start at block one and then follow the numbered instruction associated with your answer.

1

When analyzing a power supply in a system, of primary concern are the parameters...

a. V, I and R

GO TO BLOCK 15

b. R_S and R_P

GO TO BLOCK 21

2

Finding I_{RI} and V from the UTCC.

Finding $V_{(max)} = 20K \times 25ma = 500V$

Finding $\sigma = \frac{2K}{20K} = 0.1$

Finding $V = 0.09 \times 500V = 45V$

Finding $I_{RL} = 0.91 \times 25 ma = 22.75 ma$

Since when scaling the UTCC there will be a small difference between interpretations, your answers will vary slightly from ours. This is of small consequence when considering the amount of work saved by the curves. Also, the differences in scaling will carry through to some of the following blocks. Do not be concerned about the actual numbers stated but watch for accuracy.

Did you get the same result? If not, do not go on but refer back to the text, or recheck your math.

What is the current through R_P ?

 $I_{RP} = \underline{\hspace{1cm}} ma$

GO TO BLOCK 16

3

YOU ARE CORRECT!

PLAY METER, August 15, 1982

If V is 5V and R_S is $100\,\Omega$, what is the minimum value of R_L which will provide efficient voltage transfer?

 $R_L \geq \underline{\hspace{1cm}} \Omega$

GO TO BLOCK 24

4

YOU ARE CORRECT!

The independent parameter for the current source is...

a. /

GO TO BLOCK 14 GO TO BLOCK 27

7

 $V_{RL} = 4.77V \text{ and } I = 23.5ma.$

(Remember our actual values will differ slightly.)

Did you get the same result? If not, do not go on but refer to the text and then recheck your math.

What is P_T and P_{RL} for the same values?

P_T = _____

GO TO BLOCK 38

14

 ${\it CORRECT!}$ And, of course, the dependent parameter is ${\it V.}$

If the value of I is 25ma and R_P is 20K, what is the maximum value of R_L which will permit operation in the area of efficient current transfer on the UTCC?

 $R_L \leq \underline{\hspace{1cm}} \Omega$

GO TO BLOCK 40

15

YOU ARE CORRECT!

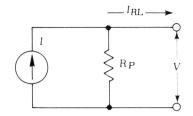
The model shown in the figure is the equivalent circuit of $a\dots$

a. Current source

GO TO BLOCK 4

b. Voltage source

GO TO BLOCK 22



16

$$I_{RP} = I - I_{RL} = 25ma - 22.75ma = 2.25ma$$
.

(Remember our actual values will differ slightly.)

Did you get the same result? If not, do not go on but refer to the text or recheck your math.

What is P_{RL} and P_{T} ?

GO TO BLOCK 39

20

YOU ARE INCORRECT!

Refer to the text and then return to BLOCK 39.

21

YOU ARE INCORRECT!

Refer to the text and then return to BLOCK 1.

22

YOU ARE INCORRECT!

Refer to the text and then return to BLOCK 15.

23

$$P_{RS} = P_T - P_{RS} = 117.5 \text{mw} - 112 \text{mw} = 5.5 \text{mw}.$$

(Remember our actual values will differ slightly.)

Did you get the same results? If not, do not go on but refer to the text and then recheck your math.

You have completed the test for Lesson One. However; before starting Lesson Two, think about any areas of this lesson you may wish to review.

Only when you feel confident about your understanding of the material covered should you proceed!

24

Since the minimum value of σ associated with efficient voltage transfer is 10, then $R_{L(min)}=10\times10=100\Omega$. (The above is derived from the sigma ratio.)

What is V_{RL} and I for the voltage source in Block 39 if $R_{L}=200\,\Omega$?

GO TO BLOCK 7

27

YOU ARE INCORRECT!

Refer to the text and then return to BLOCK 4.

38

$$P_T = 117.5 \text{mw}; P_{RL} = 112 \text{mw}.$$

(Remember our actual values will differ siightly.)

Did you get the same results? If not, do not go on but refer to the text and then recheck your math.

What is the power dissipated by Rs?

GO TO BLOCK 23

39

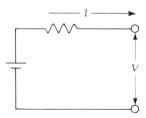
 $P_{RL} = 2.252$ watts; $P_T = 2.475$ watts

(Remember our actual values will differ slightly.)

Did you get the same result? If not, do not go on but refer to the text, or recheck your math.

What is the dependent parameter for the voltage source shown in the figure?

GO TO BLOCK 20 GO TO BLOCK 3



40

Since the area of efficient current transfer is defined by $\sigma \leq$ 0.1, the maximum value of R_L is then:

$$0.1 = \frac{R_{L(max)}}{20K} = R_{L(max)} = 0.1 \times 20K = 2K$$

Did you get the same result? If not, do not go on but refer to the text.

What would be the values of the dependent and independent parameters for $R_L = 2K$?

GO TO BLOCK 2

Sci-fi adventure

Taito America Corp.'s newest video game, *Space Dungeon*, has the aura of a science-fiction adventure with metal treasures, radar maps, and depth levels.

The player scouts the hidden precious metal treasures, avoiding enemies and following his radar map that marks the treasure room, the thief's location, the player's location, and the collect bonus room.

The player guides his ship with his eightway Guidance Control joystick and destroys enemies with the powerful Rapid Fire (also eight-way) joystick. The player's ship can pick up the metals and follow the arrows to the Bonus Room to deposit them, or explore the remainder of the Dungeon. The magical cosmic riches are iron crosses, copper pieces, silver stars, golden fleeces, and platinum arks.

Points are scored for metal taken to the bonus room and for destruction of the enemies. There are a possible 99 depth levels in the Space Dungeon, each level having 16 treasures and 36 rooms. The more levels the player seeks to find fortune, the more valuable the treasure becomes; however, it's more difficult to stay alive the deeper you go.

The enemies on the attack are Piker Ships, Death Squares, Thieves, a Treasure Guard, Executioners, Enforcers, and Spore Cases. Corner Zappers lurking in some of the rooms are ready to catch the player in a laser cross-fire unless the player takes command and completely eliminates them.

If the Thief steals the Treasure, shooting him will make him drop the treasure. But if the Spore Case is shot, it explodes into a frenzy of deadly heat-seeking Spores that must be dodged.

The player must plot and destroy the Guard in order to grab the metal, but must watch out for the Executioner and Enforcer who shoot at and try to destroy the player's ship. The Piker Ships follow and home in on the player, but with the tremendous fire power available to the pilot, he can erode the Pikers' protection shields to get a shot at the Pikers' control center, which will destroy this deadly menace. The ominous Death Square can exist and multiply in every room.

If the player's ship (adjustable two to six lives) is destroyed, the collected treasure remains in that room and is posted with a Marker so the player can follow the map and return to inflict total destruction. A special bonus of 10,000 points multiplied by whichever level the player is on is awarded if the player completely explores each room of that level. A bonus ship is earned for every 10,000 points (adjustable).







Exhuming Tutankham

Stern Electronics Inc., Chicago, lets you go through a tomb looking for hidden treasure with its *Tutankham*.

The solid state, one or two player game is licensed from Konami Industry Co. Ltd., Osaka, Japan.

With the use of realistic graphics, *Tutankham* provides the player with challenges through four phases, each increasing in difficulty. The object of the game is to find the treasure hidden deep in the tomb. The player advances carefully through a pyramid, avoiding or destroying enemies while trying to pick up hidden treasures and keys to new rooms in the tomb. The player enters a new, more difficult room by delivering the key to a locked door.

The game uses two joysticks. The left joystick is used to move the player in four directions to pick up treasures for bonus points and to search for the key. A map at the top of the screen shows the player where the key and door are located to enter farther into the pyramid.

The right joystick allows the player to simultaneously operate the power beam, which is used to destroy the Asps for 20 points, Vultures for 40 points, and Bats for 60 points. Beware, though, the player may only fire left or right. If needed, a flash button may be used to destroy all enemies at once.

The game features Stern's new slimmer and more compact cabinet design, which positions the screen at a more advantageous angle for the player. The cabinet also features a pull-out drawer for easy front access to logic boards.

Aids to the Trade

Circuit track kits

Model SRS-050 printed circuit track repair kits are designed to pay for themselves if just one p.c. assembly can be salvaged "on the spot, in time," claims the Automated Production Equipment Corp.

Deluxe Kit No. 2570-1000 contains the components and tools required for track repair: master frames with tracks, fingers, pads, elbows, and flatpack pads; three sizes of eyelets and funnelets; a set of eyelet setting tools; a consumable replacement kit (No. 2580-1394) with red and green bullets, acid brush, red and gray abrasive sticks, epoxy set, mixing pad, spatulas, bottle of flux, and bottle of cleaner; a track tool set (No. 2590-1524) with two shapes of tweezers, clamp, ball mills, and knife set; and a deluxe tool set (No. 2731-1012) with temperature-controlled pencil soldering iron and five shapes of pliers. Kits prices range from \$41 to \$425. Contact Automated Production Equipment, 142 Peconic Ave., Medford, NY 11763. Telephone: 516/654-1197.



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Advanced CRT screen

A touch-sensitive CRT screen that gives immediate and easy access to a computer memory, supplementing or even supplanting the conventional terminal keybaord, has been announced by Detector Electronics of Minneapolis.

Called *TouchMagic*, this type of transparent control screen may be the simplest and most straightforward method of interface (or communication) between people and computer memories. And this is prticularly important when the CRT is used in conjunction with emergency situations such as fire and security networks, burner control systems, and building evacuation programs. Moreover, no special training or keyboard expertise is needed to oeprate the TouchMagic system.

Besides emergency situations, *Touch-Magic*'s operating ease is particularly well-suited to process controls, maintenance scheduling, electronic games, and similar applications where non-technical personnel need ready—and easy—access to a computer memory without having to master an intricate keyboard.

In addition, the *TouchMagic* panel shrugs off oil, grease, dirt, and other working environments, making it especially suitable for industrial applications.

Touch Magic gives 256 switch positions on the CRT screen, compared to 82 or so with a conventional keyboard. And any or all the switch positions can be displayed on the CRT screen without recourse to a shifting apparatus.

Basically, *TouchMagic* is a transparent "sandwich" manufactured using sophisticated equipment and procedures in a clean-room environment. It has 16 horizontal electrical paths on a convex glass panel positioned opposite 16 vertical paths on a mylar sheet. Wherever the 32 paths cross is a switch position. The switch touch force is 14/28 grams; switch mechanical/electrical life is more than a million cycles. Current-carrying capacity is 250 milliamperes at 5 volts DC.

Touch Magic screens come in 12/15/17/19-inch (diagonal) sizes and can be bonded or clamped to the CRT or the surround mask.

Additional information about these new *TouchMagic* screens for OEM applications is available from Detector Electronics, 6901 West 110 Street, Minneapolis, MN 55438.



PLAY METER, August 15, 1982

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WINEL HUND

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TUNNEL HUNT

Tunnel Hunt[®] is manufactured under license from Atari[®].



Conography licenses

Conographic Co., which was organized in February 1982, is offering its proprietary Conographic technology on a low-cost license basis.

Conography, developed by the computer graphics pioneers Luis Villalobos and Allen Harano, is a process for curve generation with many applications in computer displays, plotters, numeric control machines, and robotics.

Conventional methods normally employ a rather large number of short straight lines, or vectors, to approximate a curve. These methods are costly in terms of computational resources and memory consumption and often result in unsightly displays and angular motion paths. Conographic curves, on the other hand, are constructed of smooth conic sections and can result in data compression of better than 100 to 1. In addition, Conography yields faster image transmission and buildup, more accurate and elegant displays, and simpler 2-D and 3-D transformations

In addition to the basic technology license, Conographic Co. is also offering software products, for example, the curve fitting program *Conofit*. Conographic Co. is also seeking to joint venture R&D projects in the computer graphics field.

For information, contact Conographic Co., 2268 Golden Circle, Newport Beach, CA 92660. Telephone: 714/642-6778.

Toting tools



Platt Luggage Inc. calls its new line of injection molded tool cases "the ultimate in rugged construction." The case is made of high-impact polypropylene combined with Platt's patented molded polyurethane pallet(s).

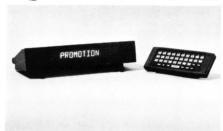
Need a shopping list? Check out the Oct. 1 Buyer's Guide.

The case comes in two sizes:

800T 18 by 13½ by 6—two pallets 805T 18 by 13½ by 5—one pallet

For complete information write Platt Luggage Inc., 2301 S. Prairie Ave., Chicago, IL 60616. Or call 312/225-6670.

Moving message sign



A message to game players may have more impact on the new compact electronic moving word sign available through Business Builders.

The sign displays up to 250 characters, approximately 40 words, moving at your choice of nine different speeds. The message can be changed in a few minutes via an external keyboard.

It is easy to display announcements about player high scores, new games, upcoming events, or specials offered at the game center.

The compact size of the unit makes it easy to place on the change counter, in a window, or on a shelf mounted above the games. The overall size, 11 inches long, 21/4 inches high, and 4 inches deep is small, and yet the 71/4 inch by 1 inch display area shows up to 16 characters at a time and is clearly seen from 30 feet. It uses a bright fluorescent display that will attract attention even with overhead lights or in daylight.

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tronic sign. I suggest changing the message every day for even better results."

In addition to player recognition, the moving message can advertise special events such as, "HAPPY HOUR M - F 4 - 6 PM TWO FOR ONE TOKENS"; to announce groups coming to the center, "WELCOME YMCA YOUTH CLUB"; or advertise promotion programs, "JOIN PLAYER CLUB - 3 FREE PLAYS PER WEEK - 156 PLAYS FOR \$5.00." You can even rent ad messages to other stores in the area.

For further information on this electronic sign contact: Carol Kantor, Business Builders, 10381 S. De Anza Blvd., Suite 209, Cupertino, CA 95014. Telephone: 408/446-4400.

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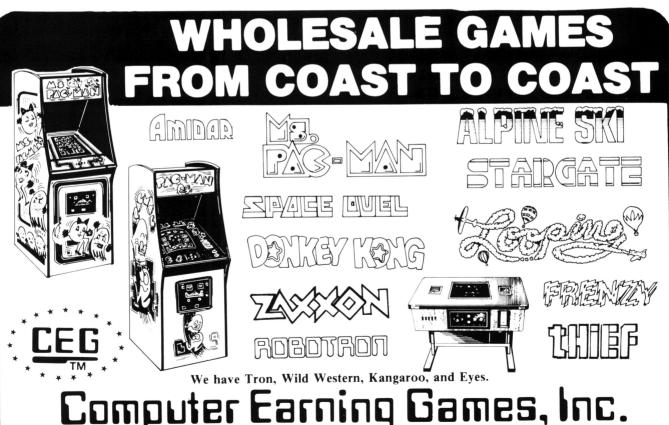
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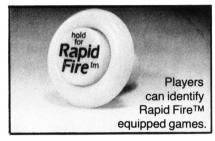
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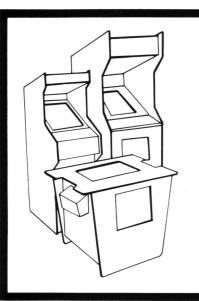
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Video Valium

By
Mary Claire Blakeman

Consider what video games have done. They have offered—from Space Invaders on—a medium that allows people to take out their aggressions, to work out these hostilities in a socially safe manner. A player's countless anxieties suddenly take form on that video screen before him, and he can vaporize, elude, or leap over these adversaries until he is finally overwhelmed.

—From "Videos have a purpose" (See *Play Meter*, June 1, p. 126) By David Pierson

unch was not pleasant. In fact, I was so hot under the collar, my polyester blouse started to melt. I was so mad I could have ground two pounds of coffee with my teeth. I was so angry that...well, you get the picture.

Storming out of the diner, I left hubby to scowl over his French fries. I walked into a nearby bar, slapped a dollar on the counter, and ordered change. Quarters. Four of them. (The bartender wasn't thrilled.)

Passing up the bottles of booze, I headed straight to the corner and shoved two quarters into the blinking, beeping video game that stood there. In seconds the *Pac-Man* came to life. I gripped the knob tightly and glared into the screen.

This Pac-Man was no cutesy cartoon. He was hungry and mean. Blip, a monster got it, and 200 points racked up on the screen. Take that—and that. The game heated up and the monsters chased harder, but my anger just made Pac-Man run smoother and faster.

The blue monsters didn't have a chance. Mad laughter echoed in my head as the defeated monsters simpered back to their home base. It was one of my best games.

They say hyperactive children sometimes calm down when you give them stimulants. Maybe that's what was happening to me. The game's mesmerizing action began to work on my nervous system, reducing the pulse rate, slowing my breath.

The Pac-Man continued coolly around the maze, gobbling dots and annihilating monsters. But as we all know, the monsters eventually win in the end. So finally, emotions and money spent, I sighed and walked out.

(The bartender wasn't thrilled.)

As I walked along, though, it struck me that I felt awfully good for not having had a drink. I was even ready to forgive my spouse. What was going on here?

Maybe I was on to something...Yes, yes I could see it

now...the end of marital strife, the Arab-Israeli wars, and even the age-old fights in Dear Abby about which set of divorced parents gets invited to the daughter's wedding. We'll just settle everything with vicarious video violence.

Now if the industry really wants to capitalize on its newfound popularity with women, it should offer games that take advantage of this idea. To start with, there could be a game called, *Bop Your Husband*. In this one, the little stick man would run around the screen getting points for doing the right thing and a head bashing for screwing up. For instance: "Won't help with the dishes," BAP! "Leaves clothes on the floor," BAP! BOP! BOP! "Stay out too late with the boys," BOP! Or—"Bring a bouquet of flowers home," 200 points. "Makes dinner without grumbling," 500 points...

Then there could be a game for female secretaries called, Boot Your Boss. A hard-working, loyal employee begins climbing the video ladder of success, and anytime a mean, lecherous boss gets in the way, he gets a swift kick in the fanny and falls off the ladder.

Or how about something with universal appeal: Neutron a Nerd? The player could select a variety of targets ranging from the hotel clerk who can't find your reservation to the jerk who cuts in front of you on the freeway. As soon as the nerds appear, ZAPPO, the neutron bomb sends them into well-deserved oblivion leaving the rest of the world intact and much improved by their absence.

Ah, what happy souls we will be when we can bap and zap all the people we'd like to strangle in real life. And these games will no doubt reduce drug use since they will effectively manage stress and lower blood pressure.

Yes, yes, I can hear it now..."Doc, I'm really upset. You gotta give me something to calm my nerves."

"Take two Asteroids and call me in the morning."

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