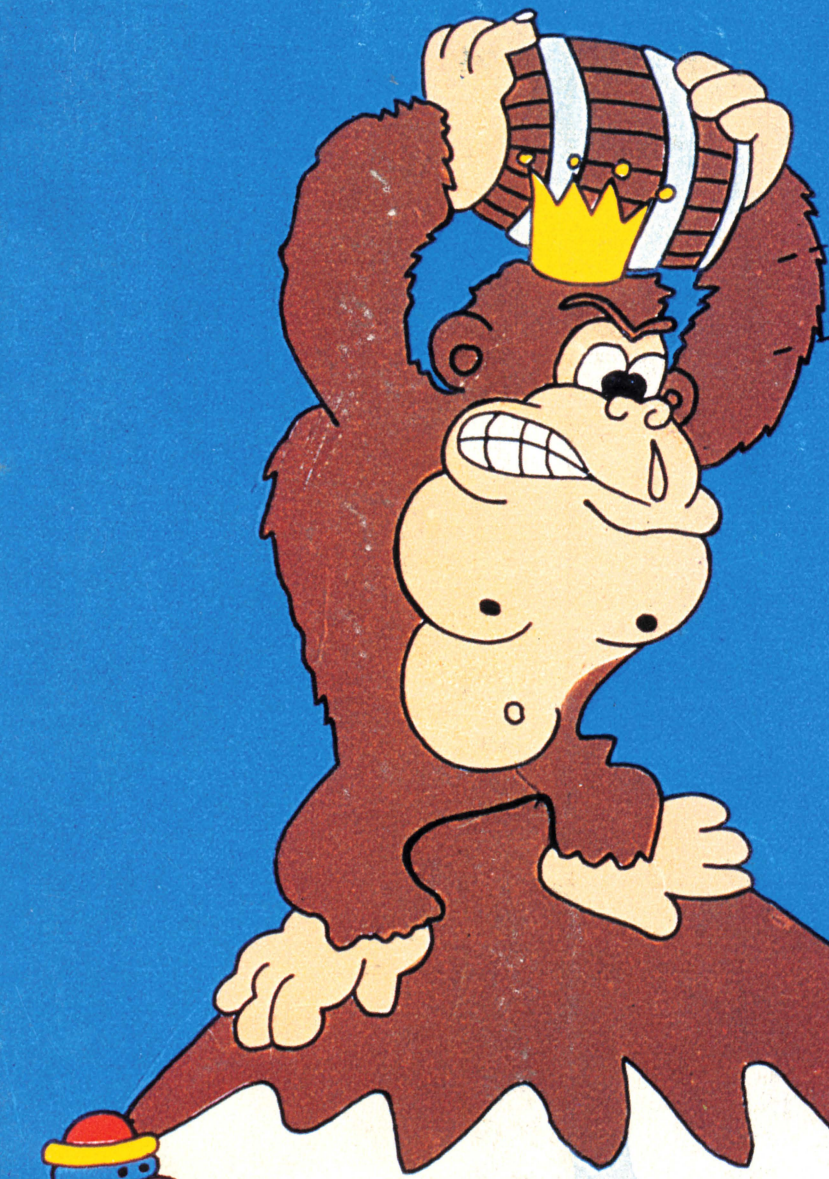
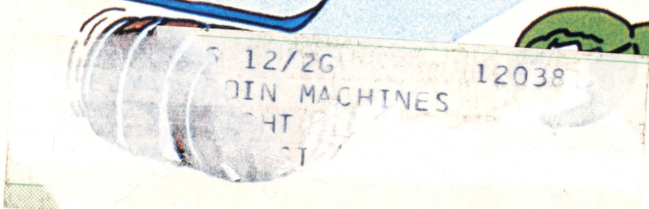
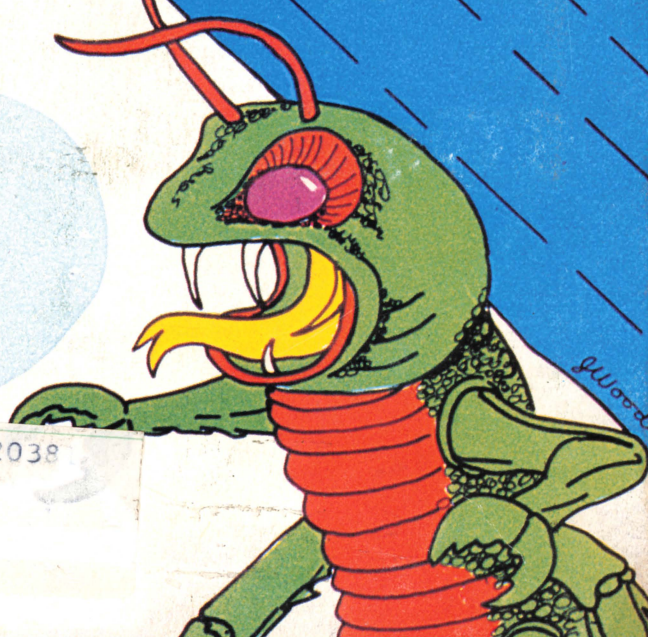
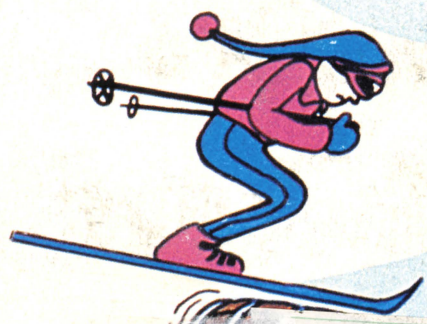
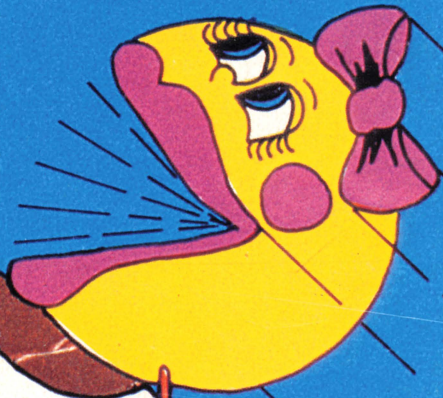


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J. Wood



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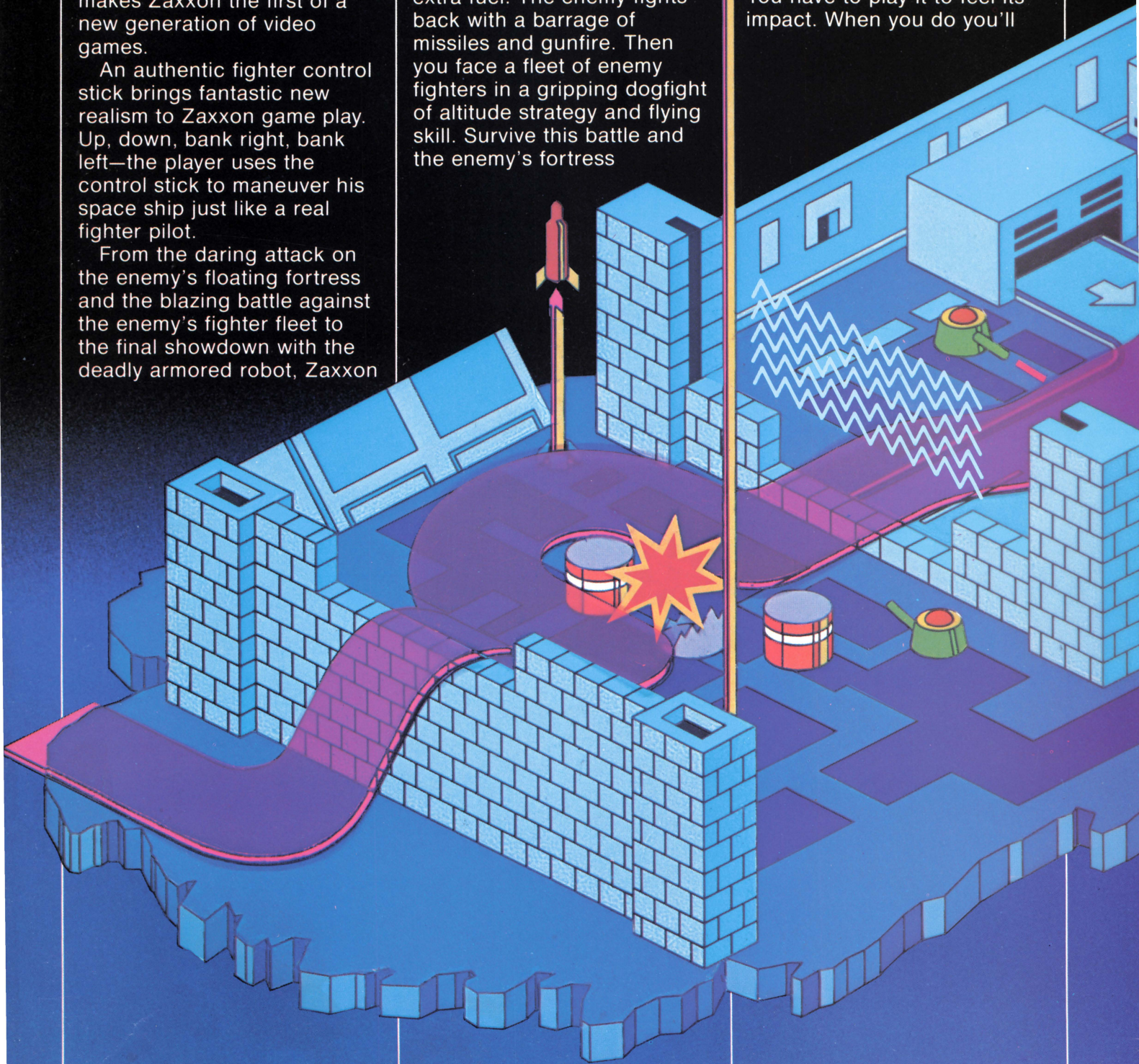
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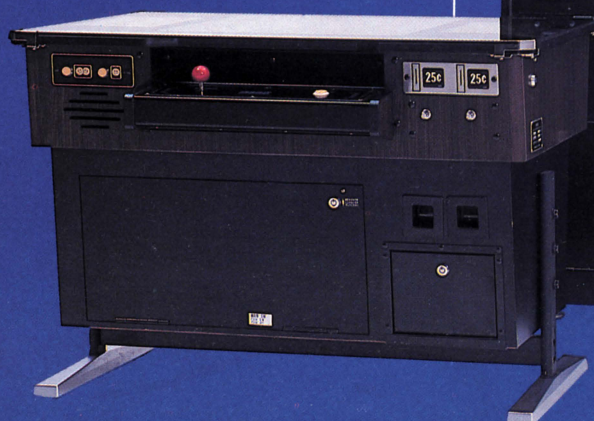
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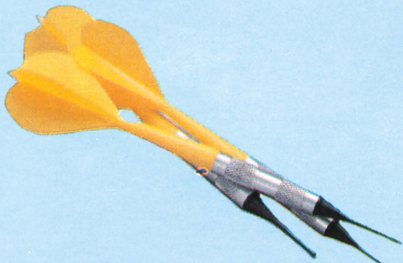
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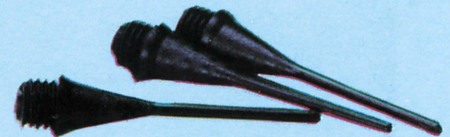
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The Twice Monthly Publication for the Coin Operated Entertainment Industry

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Many who sought the Holy Grail of video profitability have been left holding a leaky paper cup. Michael Mendolsohn takes a summary view of the last three years and analyzes the direction the video game business has taken.

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The Video Copyright Law Issue Through the Eyes of Richard Stern
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Why a Distributor?
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A first rate company goes about its public relations task in a first rate way, addressing the country with something that says nice things about the entire spectrum of the industry in a convincing way.

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UP FRONT (Point/Counterpoint)

Point: The problem is the forest

Members of our industry who are constantly discussing the problems we have are, maybe, as the saying goes, "too close to the forest to see the trees."

It would take a small book to list all the supposed problems we have, or possibly could have. This is not the reason for this article, but rather to consider one specific subject that seems to be causing quite a stir in the amusement industry—i.e. the question of operating the amusement poker machines.

The term "gray area machines" would appear to have been coined by those who either have a poor working knowledge of our language, or those who, by design, wish to cast a subtle slur on a successful competitor. There are, by definition, only two types of poker machines manufactured and sold on today's market—i.e. amusement only or gaming only. The gaming type machines are legally sold and used in only two areas of this country and that only with special licensing requirements. The amusement machines are legal in all other areas of this country, as manufactured. There is no statute or licensing authority in this country that identifies any machine as a "gray area machine" either in amusement or gaming statutes.


What should be recognized is that all manufacturers of amusement poker machines build and sell them with the *intent* that these machines be used for amusement only. *Intent* is the word that should be understood. No one with any business sense would knowingly build or sell a product with the *intent* to break the law.

It seems that some people are upset with the amusement poker machines because they could be gambled on. In some cases I am *sure they are*. But this same truth applies to almost anything you can name, and here truly is where the witch hunt begins. Do you

outlaw all television sets in local pubs because on Super Bowl Sunday people sit, drink their beers, and bet on the game? Do you outlaw all pool tables because occasionally the players bet on the outcome of the game? Do you outlaw the sale of decks of playing cards because someone might gamble with them? Silly, isn't it? Again, the secret word is *intent*; the television set, the pool table, the deck of cards, all are intended to entertain, not to do anything illegal. Can the manufacturer of *any* game on the market today say that no one will ever wager on their game or its outcome from playing it? People are by nature competitive; they love a winner. When two people get together to play any game and they say, "I bet I can beat you"; that's gambling, mister.

Again, as I first indicated, let us, as an industry, step back and take a good look at the trees; the forest is really getting in the way.

We as an industry and as individual businessmen get very upset when innuendos are cast upon us by communities, trade publications, or members of our own industry. Honest, law abiding operators and arcades are having problems in some areas. Slander, half truths, slurs, innuendos—we are experiencing these by the bucketfuls. But then we do the same things to our own—is it any wonder we have problems???



Bill Stanard
General Sales Manager
Bend Electronics Co. Inc.
Oregon

Counterpoint: We don't want any forest fires

You are right about one thing and one thing only. The term "gray area machine" is a poor choice of words to describe video card games. In our opinion, these games should be referred to as "subterfuge gambling devices." Because that's exactly what they are. In fact, there is no question that the IRS would have classified all such machines as coin-operated gaming devices under 26 U.S.C. 4461-2. But since the repeal of the \$250 IRS gaming tax stamp on August 1, 1980, the federal government has left the matter of deciding what constitutes a gaming device up to state and local authorities. To date, video card games have been ruled to be gambling devices in Ohio, Pennsylvania, Maryland, Minnesota, Oregon, and more states are sure to follow.

While you would have us all believe that you would not build or sell a product with the *intent* to break the law, you openly admit that people gamble on video poker machines. As you say, the word *intent* is the word that should be understood. Would you have us believe that makers of radar detectors for private automobiles do so with the *intent* that they not be used to break the 55-mph speed limit law?

And what about the manufacturers of drug paraphernalia? Would you have us believe that the people who buy drug paraphernalia do so for amusement only? Of course not. In fact, the Supreme Court recently ruled that state and local authorities had the right to ban the sale of such merchandise specifically because they were manufactured with the *intent* of breaking the law. And now you want us to believe that video games with such themes as draw poker, five card stud, black-jack, hi-lo, bingo, horse racing, and dice are manufactured with the *intent* of providing pure amusement? Just how naive do you think people are?

Your argument about people being able to gamble on anything such as a TV set, a pool table, or a deck of cards is ludicrous. If a player bets with another player on the outcome of a game of *Pac-Man*, the players may be gambling, but the machine isn't. Have you ever heard of a *Pac-Man* game being confiscated as a gaming device? I'm sure you haven't. But we know of numerous cases wherein video card games have been confiscated and operators convicted for gaming violations.

So let's reconsider that word you chose, *intent*. Regardless of what you say, games of chance are *intended* to promote gambling. Games such as poker, black jack, five card stud, bingo, horse racing, and

dice are all games of chance whether they are played in a casino or on a video screen.

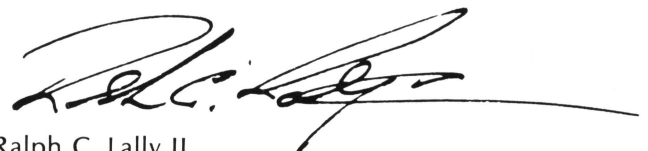
Pure amusement devices do two things: take a fixed price per game and provide a challenging game of skill (including, sometimes, the entertainment of an additional replay or two). Gambling devices, on the other hand, must always perform three functions: accept more than one fixed price (the stake) for a single play, apply pure *chance*, and control *chance*-determined payouts (wins). A gambling device cannot have any substantial skill element, because then skillful players could consistently beat it.

There can be no doubt that video-card games flunk the test for being pure amusement devices. Yet they meet all the necessary requirements of a gambling device. The only distinguishing feature between a pure gambling device and the alleged "amusement only" devices is the absence of a direct payout. That is why the "gray area games" are best labeled "subterfuge gambling devices." These machines contain circuitry for "knocking off" and recording unplayed credits. Some of these machines may award up to 4,000 credits on a single play. In a pure amusement device, no one ever wins more than the number of games that might be reasonably expected to be played off—five, ten, sometimes up to fifteen. Who in his right mind would ever expect to play off 4,000 games on a machine?

Regardless of what your real intent is or how you say your machines *may* be used, it is our opinion that video-card games, by virtue of their construction and inherent features, are camouflaged gambling devices, and their use as such is a crime in 49 states (and a crime of felony degree in many).

This industry does have its problems that we must grapple with, but the problem of "subterfuge gambling devices" is one we would rather do without. In its proper form, your metaphor applies to your position on this issue. "You can't see the forest for the trees."

We don't want to see any forest fires. So why don't you and others like you go find your own forest and leave ours alone.



Ralph C. Lally II
Editor and Publisher

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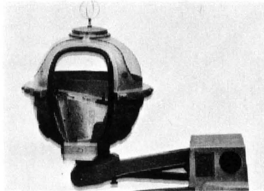
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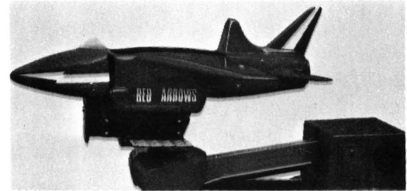
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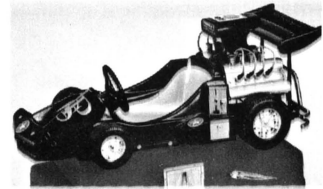


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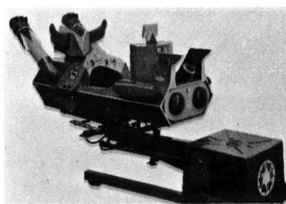
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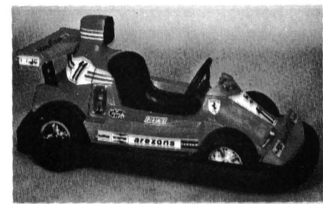


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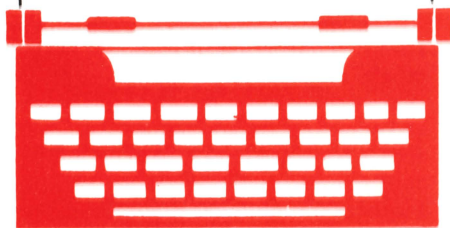
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Letters to the editor . . .



What's in a name?

I do thank you for your prompt letter indicating that Fun & Games Ltd. of Granite City, Illinois, is not the Fun & Games that you had reference to in your article on page 74 of the *Play Meter* issue of May 1, 1982.

Fun & Games Ltd. is a distributor of Elcon Industries Inc., convertible equipment only. We do not attempt to sell customers equipment where we can not service the account. We are not a "road show" type of company.

We have service technicians that make on site repairs to the equipment that we sell to our customers, thus we are limited in the area we may sell equipment, as travel to distant cities is not profitable nor possible for us.

We do the best we can not to have any customers dissatisfied with our firm, and thus far we have succeeded.

B. L. Bradley
President
Granite City, Illinois

[Ed. reply: The Fun & Games spoken of in our issue of May 1 is now defunct. We have received no similar complaints against any of the other many firms across the country which bear that name.]

Richards' injunction noted

I have read with interest in your edition of March 15, the article you wrote regarding the ATE and the American visitors' viewpoints.

Throughout this article you draw to everyone's attention the success or otherwise of booths DL9 and 10, namely Competitive Video and John Richards, and you quote him extremely freely throughout, even suggesting that he was producing reproductions of *Qix*, a Taito game. You also draw attention to the sort of poster

that he displays.

It is a pity that the situation did not allow your research to find out what the attitude of major manufacturers in the UK was on this subject. You must be well aware of the efforts and successes currently being achieved by Vic Leslie on behalf of Sega in the protection of their games in the UK. Mr. John Richards was served with an injunction by my company during the last day of the ATE and was forced to remove any suggestion that he could offer *Qix* conversions. That injunction has since been upheld and a lifetime ban placed on his attempts to provide *Qix*, resulting in the gentleman in question now applying to us to purchase authentic goods and

become a licensed converter of old machinery into updated *Qix* machinery, which would rather, in my humble opinion, discredit the ad poster that you highlighted.

David B. Coren
Managing Director
Taito Electronics
London

[Ed. Note: I read with interest your letter of April 23 and want to point out that the situation at the ATE did allow me to find out the attitude of the major game manufacturers on the game copying problem. Obviously, the major game manufacturers are, as you say, trying to do something about the problem—although factory



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representatives at the show, while intimating that legal action would be taken against the copiers, offered no official comment during my stay there. (Regrettably, I was not there for the last day of the show to see what action was taken by your company against Competitive Video.)

The subject of my article, however, was not about the attitude of the major game manufacturers on copyrights. It was on the attitude of the rest of the industry toward the copyright problem. And, quite frankly, they didn't see it as a problem. The remark by the BACTA official whom I quoted in the article—wherein he stated the national association wanted to remain "neutral" on the matter for fear it would offend some of its members who are copiers—indicates the lack of support the major game manufacturers are experiencing in your country. The result of this laissez-faire attitude by the industry as a whole (and, by that, I do not mean to include the major game manufacturers who are obviously trying to protect their own interests) is a drastic decline in video game activity.

That's what the article was all about.]
David Pierson

"Short"-gevity the problem

After being in the video amusement business for a couple of years, a few cold hard facts are becoming more and more obvious to me and I am certain to most other operators. To state the problem simply—the combination of increasing costs of new machines (and expenses), the popularity longevity of a machine, and decreased trade-in value are making the bottom line look more and more unattractive to the operator. The longevity of machines like *Asteroids* made them well

worth the investment, but there are few machines that will never enjoy that kind of longevity. Unfortunately, the "short"-gevity of all other "once popular" games is the primary factor affecting the bottom line.

We can only look to the designers and research communities to improve the "short"-gevity problem, but the manufacturers can reduce the cost of new games by adopting, in part, the retro-fit concept. I am using the word retro-fit to distinguish it from the term convertible wherein one buys a new whole game with the option to buy additional plug-in kits that change the game from game A to game B.

A retro-fit kit on the other hand is a kit designed to change an existing game (such as *Space Invaders* or *Asteroids*) to a new game. The obvious main advantage to the operator is that he can now transform his graveyard into new games without the additional cost of the cabinet, video, power supply, wiring harness, and other hardware. The average kit would consist of the board, new marquee, new (or altered) player panel, front plexiglass, (in some cases) and a few decals. Other items may be required depending on the design concept.

I have discussed this concept with a few manufacturers and distributors and I will share some of their comments and my reaction to them with you.

"When a new game hits the market, it should be brand new and shiny to attract the players." All well and good, but my new games maintain their brand new and shiny appearance for the better part of two weeks, then the scrubbing operation begins. Furthermore, if retro-fit kits were available, most operators are smart enough to realize that the cabinet would have to be totally repainted to remove all indications of the old game.

"The copyright laws are so complex that manufacturers will not risk it." I agree that if manufacturer A sold retro-fit kits to

modify manufacturer B's games, there may be some copyright problems. But in my mind, there shouldn't be because it's the game that is protected by copyright laws (and properly so) but not the cabinet, etc. Anyway, I cannot believe that there is a copyright problem associated with a manufacturer retro-fitting one of his own games. Brand name manufacturers selling retro-fit kits for their own games through existing distributors will not open any additional doors to the knock-off artists or garage shops that already exist.

Although none discussed profit with me, I am sure that it is a concern. But the facts of life may be simply that a larger and larger demand for retro-fit kits is growing and somebody somewhere will satisfy that need. Why not incorporate it into the existing system where it can be controlled? Furthermore, this may soon be the only market unless the problem associated with the cost of new machines and longevity discussed earlier are resolved. A decent profit for manufacturers and distributors can still be enjoyed.

I can foresee two additional advantages to the manufacturer. First, simpler and cheaper market research. Many more games could be placed across the country to determine the degree of popularity if done in kit form rather than whole machines. Second, I am sure this concept would greatly reduce the animosity that is growing between the operator and manufacturer because of home game production and recent legislation concerning speed-up kits. This industry is not immune from the importance of developing good customer relations. Any manufacturer that assumes that the customer's needs are not vital to the success of the industry will eventually learn the hard way.

Robert J. Skerrett
Western Amusement
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Pulling in the reins on employee embezzlement

The following article came to Play Meter from Charles, Charles & Associates of Kansas City, Kansas. CCA is a marketing management consulting firm specializing in market and product planning, psychological research and video game playing behavior.

The phenomenal growth in the video game business can be attributed to at least two key market trends, both reflecting greater market penetration:

1. Enhanced consumer demand - more people are playing these games more frequently.
2. Broader distribution base - mass retail merchants such as grocery, department, drug, and other retail outlets, as well as new arcades have expanded the distribution of video games.

Unfortunately, these trends appear to be softening. The distribution of video games via mass merchants may be reaching a state of saturation. Recent industry statistics suggest that consumer demand for playing video games may be leveling off.

Given these signs of a maturing industry, operators may find their profits starting to stagnate unless they find more effective

ways of getting a firm handle on operating expenses. Indeed, successful operators will likely be those who find new ways to control expenses, ways that many operators might think are impractical today.

Take, for instance, the problem of collection shortages. Many shortages are due, of course, to the use of slugs, strings, and other tricks devised by dishonest players. But let's face it, whether we like it or not, many shortages are due to employee embezzlement.

What makes matters worse is that some operators take a *laissez-faire* attitude toward low-levels of employee embezzlement. While few operators will tolerate a flagrant violator who embezzles say \$25 a whack, many operators simply ignore suspected violators who occasionally pocket a dollar here and a few bucks there.

Charles, Charles & Associates (CCA) recently took on the task of assisting one of its clients in coming to grips with the problem of shortages in video game collections. For obvious reasons, CCA's client wishes to remain anonymous. He was, however, willing to share this case study with other operators who are interested in pulling in the reins on employee embezzle-

ment. To facilitate the discussion, the client is referred to as Video Vending.

Background on Video Vending

Video Vending had operated for almost three years in a large midwestern city when it first became associated with CCA. Like many operators who got an early start on the video boom, Video Vending's revenues and profits had grown geometrically.

With the aid of CCA, Video Vending has recently computerized many of its operating procedures. For example, the movement of machines from location to location has been optimized through the use of a unique program which provides information for maximizing game revenues by minimizing the effect of "game wearout." In addition, more effective accounting procedures have been developed and computerized to enhance employee productivity and to provide management with crucial sales analyses. A collection program outputs shortages and overages for each machine and for each routeman twice a month. The following information is provided by the collection program: location #, machine, service #, new meter, old meter, coin read, shortage, overage, and cash counted.

Computer programs are written in Applesoft basic for an Apple computer.

Collection problems

Several months after the owner of Video Vending began using the collections program, he suspected that some employees were embezzling money during route collections. The suspicion was based on a high number of shortages exceeding \$5 which could not be attributed to unreliable meter readings. In addition, there were a lot of shortages under \$5 which, at first, were not as important to the owner as the shortages over \$5. (Later we will see that these were more important than the owner thought.)

Since the owner now had factual evidence to back up his suspicion, he confronted the employees and asked them to submit to polygraph tests. As things turned out, all but one employee failed the test.

By itself, a polygraph does not give conclusive evidence. When interviewed after

NUMBER OF OVERAGES & SHORTAGES BEFORE AND AFTER DISMISSALS

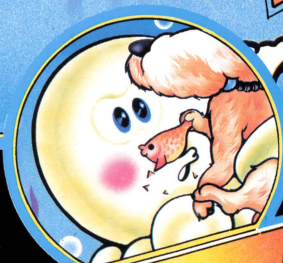
	# Before	# After
\$25.25 or more overage	39	33
\$ 5.00 to \$25.00 overage	25	49
\$ 0.25 to \$ 4.75 overage	209	597
Subtotal	273	679
Exact Count	110	198
\$ 0.25 to \$ 4.75 shortage	742	305
\$ 5.00 to \$25.00 shortage	113	44
\$25.25 or more shortage	36	41
Subtotal	891	390

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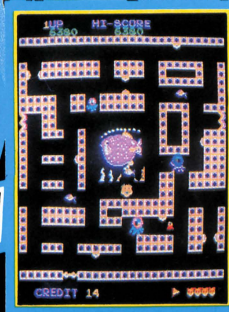
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Play Meter

Equipment 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. Amounts are heavily weighted by averages reported from arcade locations; street locations are generally lower. 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.

TOP VIDEOS

Sixteen of 37 videos (43%) with a response rate over ten percent have above average earnings.

TOP PINBALLS

Eight of 16 pinballs (50%) with a response rate over ten percent have above average earnings.

	June 15	June 1	May 15
National video average.....	\$190	\$174	\$161
1. Zaxxon/Gremlin	\$279	\$296	\$326
★ 2. Turbo/Gremlin.....	\$253	\$269	\$262
★ 3. Robotron/Williams	\$246	\$266	—
4. Ms. Pac-Man/Midway	\$239	\$246	\$243
5. Donkey Kong/Nintendo ..	\$231	\$245	\$243
★ 6. Dig Dug/Atari.....	\$219	\$217	—
7. Stargate/Williams	\$211	\$216	\$224
8. Pac-Man/Midway	\$209	\$210	\$214
9. Galaga/Midway	\$201	\$209	\$212
10. Centipede/Atari	\$201	\$193	\$199
11. Tempest/Atari	\$197	\$189	\$198

	June 15	June 1	May 15
National pinball average	\$120	\$116	\$104
★ 1. Caveman/Gottlieb	\$181	\$182	\$225
★ 2. Mr. & Mrs. Pac-Man/Bally..	\$179	—	—
3. Haunted House/Gottlieb ..	\$146	\$162	\$171
4. Hyperball/Williams.....	\$134	\$160	\$185
5. Centaur/Bally.....	\$124	\$127	\$137

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

Provisionally Rated Pinballs and Videos

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

VIDEOS	June 15	June 1	May 15
Provisional Ratings			
The Pit/Centuri	\$238	—	—
Alpine Ski/Taito	\$206	\$239	\$281
Frenzy/Stern	\$202	\$194	—
Lady Bug/Universal	\$198	\$233	\$230
Looping/Venture Line	\$193	—	—

PINBALLS	June 15	June 1	May 15
Provisional Ratings			
Orbitor 1/Stern	\$188	—	—
Rapid Fire/Bally	\$139	\$135	\$183
Devil's Dare/Gottlieb	\$131	\$125	\$120

Operator/readers who would like to join the ever-growing numbers of readers participating currently in the survey, write: Play Meter, Equipment Poll, P.O. Box 24170, New Orleans 70184.

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(Continued from page 14)

the polygraph test, however, those who failed, admitted to having pocketed small change. On the basis of these admissions, the owner promptly dismissed them.

On an aside, the most common excuse offered for embezzlement was that everyone else does it. One employee who had worked for other operators in the area said his previous employers simply accepted it.

Analysis of collections

Did the owner's action have an impact on shortages? To answer this question, CCA examined the shortages over two six-week periods, one before the employees were dismissed and one after.

In the six-week period before the dismissal, there were 891 shortages. In the next period there were 390 shortages. Additionally, there were 273 overages before the dismissal but 679 overages after the dismissal. These results are shown in the chart.

Statistical analysis of these results shows that the number of shortages significantly decreased after the dismissal. But a more significant finding is the dollars saved by eliminating the shortages. In the "before" period, shortages outweighed overages to the tune of \$1,568. In the "after" period, however, overages outweighed shortages by \$470. In other words, \$2,038 was saved in the "after" period.

The most significant finding is how the overage/shortage categories contributed to this savings. By far, more money was

saved in the \$.25 to \$4.75 category, instead of the \$5 to \$25 category. In fact, by reducing shortages in the \$.25 to \$4.75 category alone, the savings were \$1,238, while \$800 was saved in the \$5 to \$25 category.

The message is pretty clear. Look at all your shortages carefully, especially those that you might not have considered important because they are too small to mess with.

“...the most common excuse offered for embezzlement was that everyone else does it.”

Setting up a monitoring system

A final objective of CCA's assignment was to set up an early warning system so that Video Vending could detect potential embezzlement even at a low level.

As noted above, the most sensitive area ranges between +/- 25 cents to +/- \$4.75. That is, significant deviations can best be accounted for by this category. Guidelines were developed by looking at the average deviation from an exact count based on

meter readings. After the dismissals, the average deviation was a 42 cent overage. In other words, each machine will typically have an extra coin or two in it. Several operators have told CCA that, under normal circumstances, the average collection should be a little over an exact count due to machine problems.

Given the typical overage, Video Vending has adopted the following guidelines in monitoring employee performance:

Normal Performance: An employee who consistently averages 25 cents to 50 cents over on each machine.

Below Normal Performance: An employee who consistently averages 0 cents to 25 cents over on each machine. This employee will be made aware of what normal performance is and encouraged to more carefully count his collections.

Unacceptable Performance: An employee who consistently averages below 0 cents over on each machine. This employee will be administered a polygraph test and interviewed about the test results. Admission of embezzlement at any level is grounds for dismissal.

CCA cannot guarantee that this type of warning system will work for other operators. Some type of warning system, however, should be adopted. Finally, it should be one that does not let those small shortages go unchecked.

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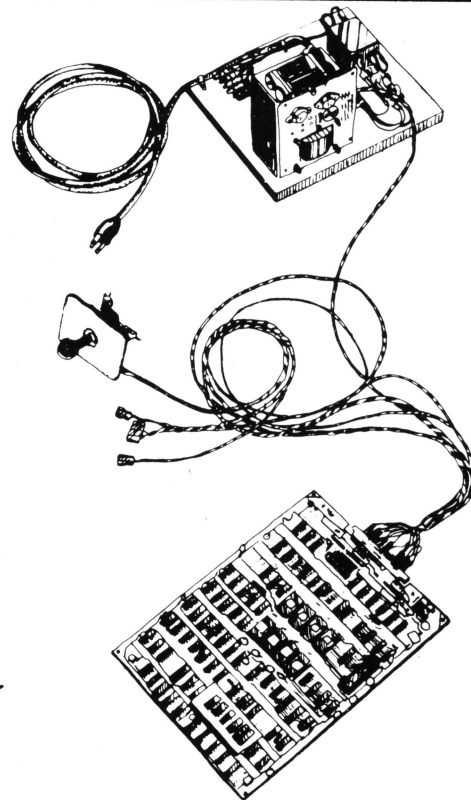
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VIDEO A B

Disney joins in as Williams and Bally tangle over game rights

The happy-go-lucky characters milling around Walt Disney Productions are frowning on Williams Electronics. They say that Williams is offending their Magic Kingdom of rights in regard to the word "Tron."

"Tron," a Disney film due to open early in July at theaters across the country, is an adventure film which brings to life a series of familiar video-game characters.

What Disney is upset about is Williams's new video, *Robotron: 2084*. Disney contends use of the word "Tron" within the title of that game is an exploitation of the film to come and represents unfair competition and dilution of the name.

Williams's president has denied the charges.

"It is a shame that time, energy, and money has to be wasted in responding to such frivolous claims," Michael Stroll said.

"The game has nothing to do with the movie," said Norman Menell, a Williams's vice president. "There is no substance to the suit."

A similar case cited by Menell depicted an action instigated by Bullova Watch who accused a competitor with infringing on the name "Acutron" by naming its watch "Unitron." The court found in favor of "Unitron," indicting that there was no likelihood of confusion.

Tron is also a video game based on the Disney movie and marketed by Bally/Midway. In fact, Bally and Disney will co-sponsor a *Tron* tournament. The initial rounds are to be staged in Bally's arcade locations nationwide. Tournament finals are scheduled for July 7 in Madison Square Garden.

The Williams game has already been a tremendous success.

"The response to *Robotron: 2084* has resulted in revenues in April 1982 exceeding by 19 percent revenues in April 1981, during which time the company was manufacturing its highly successful game

Defender," Stroll informed stockholders in a second-quarter earnings statement. "By reason of the demand for *Robotron: 2084* and the increased production capacity now available to the company since the opening of its plant in Gurnee, Illinois, revenues and estimated earnings in the month of April 1982 were higher than in any previous month in the company's history."

The suit against Williams comes on the heels of an unsuccessful effort by Williams to enjoin Bally from production of *Rapid Fire*. In an action filed April 8 in Federal

District Court in Chicago, Williams claimed that the artwork on *Rapid Fire* was deceptively similar to that of Williams's *Hyperball*.

On April 15, the District Court denied Williams's request for a temporary restraining order against Bally. Then, on April 23, after Williams presented new evidence in the form of additional depositions, the court denied a Williams appeal for a temporary injunction.

Williams has since ceased production of *Hyperball*, indicating that initial player interest in the game had fallen off.

North Carolina looks at "gray area" machines

North Carolina Attorney General Rufus Edmisten has informed the state beverage control commission, which regulates amusement devices, that electronic video card games are "probably illegal under North Carolina law."

Saying that attorneys general are qualified to "pass on questions of law or the application of the law to a given state of fact," but not to take the place of judges and juries in finally resolving legal questions, Edmisten points out that "illegal gambling appears to exist in all three states of three elements" required to make the devices considered illegal gambling machines in North Carolina. These three elements are "(1) consideration, (2) chance, and (3) prize or reward."

The attorney general applies a test of nine law features to determine the illegality of the machines. He surmises that:

- (1) The game of draw poker or blackjack is not a game of skill.
- (2) The machine does not provide

genuine amusement for the money.

(3) The device accepts multiple coins for a single course of play.

(4) The machine awards more replays than any reasonable person would be expected to play off.

(5) The machine contains "knock off" circuitry.

(6) The machine contains internal accounting devices or recording meters.

(7) The machine incorporates safety features to prevent drilling or wiring to establish extra credit points that haven't been paid for.

(8) The machine is easily adaptable to payouts.

(9) The playing time is too short to be considered "for amusement only."

"Any machine which contains as part of its design or operation of play any of the nine features described in the foregoing numbered paragraphs is probably illegal under North Carolina Law," Edmisten summarized.



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Colleges use videos to substitute for shrinking government aid

Colleges and universities are using profits from their video game centers to fund programs vital to the continuation of the schools' offerings.

The University of Pennsylvania is using video profits to pay for a \$500,000 renovation of its student union.

Temple University's four campuses took in \$125,000 for its general fund that enabled the school to hold down its tuition increase for next year to less than 10 percent—among the lowest increase of any of the area schools.

Villanova University videos are pulling in more than \$100,000 a year gross and those monies are paying the operating costs of the school's Connelly Student Center.

LaSalle College uses more than \$1,000 a week in video profits to provide student scholarships and financial aid.

"In the Philadelphia area alone, video games in campus game rooms have become a boon for schools hard pressed by rising costs and shrinking state and federal aid," states a story in the May 9 edition of the *Philadelphia Inquirer*.

Richard Blackburn, executive director of the Association of College Unions International, says that videos are producing millions of dollars a year for schools throughout the country.

"There's every indication that video games are being used more and more as a dependable source of revenue at a time when student activities are feeling the same financial pressures as the schools themselves, including higher costs, lower aid, and generally reduced funding," he told the *Inquirer*.

Temple has about 31,500 students and the University of Pennsylvania has an enrollment of more than 22,000 students, but smaller schools are taking in significant profits from the games. West Chester State College, enrollment 9,000, grossed about \$60,000 on the game this year.

The article reports that the video boom is great for the operators who supply the games to the schools, too. It cites Alpha Omega Amusement of Edison, New Jersey, who specializes in college locations. The firm supplies games to more than seventy colleges in Pennsylvania, New Jersey, and Delaware.

Frank Seninsky, president of the company told the *Inquirer* that his 2,000 college videos average about \$250 to \$300 a week apiece, but he told *Play Meter* that the total picture of college operations is not as rosy as the *Inquirer* painted it.

Vandalism is rampant and profits cease when school is out. "It's strictly a thirty-week season," says Seninsky.

College locations also come with difficult ordinance problems. Currently, Alpha Omega is battling in court over whether or not the township of Piscataway, New Jersey, can level licensing fees on its campus machines.

Seninsky has "about eighty" machines placed on the Piscataway branch campus of Rutgers University. The municipal fathers want to charge Seninsky an annual fee of \$100 a machine for the right to place the games. Seninsky claims that the township has no authority to create ordinances for the state university campus.

"This case will set a precedent for county and state colleges across the country," offers Seninsky. "If the court decides in favor of the town, it would reverse an earlier opinion that the campus cannot be controlled by the city."

In 1971, Piscataway lost a battle to impose building codes on Rutgers' buildings.

AVA Show #1

by David Pierson

"I see a trend among the small companies of making giant strides," observed Pete Entringer, president of the distributing firm, Audio Visual Amusements in St. Louis.

The occasion for his remarks was AVA's springtime open house showing April 28. AVA has been sponsoring a distributor open house in the late fall to showcase new equipment introduced at the AMOA Show. With the success of the Amusement Operators Expo, however, he says he now plans to hold two open house showings each year—the second to follow the AOE springtime show.

Visiting operators were treated to a buffet lunch in addition to a tantalizing

menu of new games. But it was Entringer's assessment of the direction of the industry toward profitable smallness that carried more impact.

His industry appraisal was meant as a dual evaluation—for smaller distributors, like himself, and for smaller manufacturers, like the companies he represents. The St. Louis distributor prides himself on handling many of the so-called smaller equipment lines—Nintendo, Universal, Pacific Novelty, U.S. Billiards, Cinematronics, Dynamo, and Venture Line. And he's reporting great acceptance from operators and great success for his company.

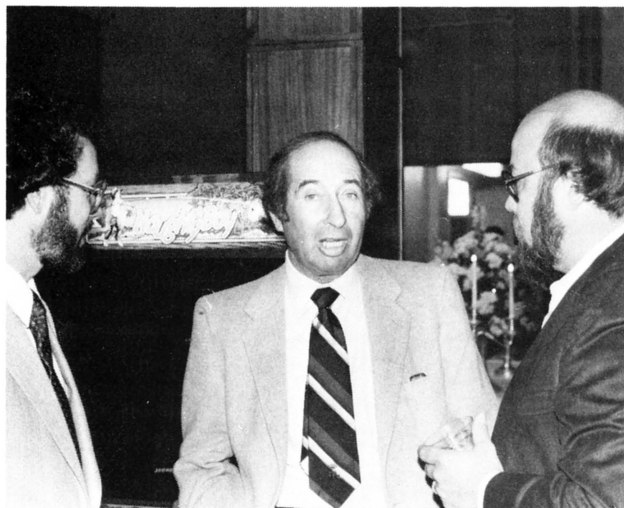
In the 21 months AVA has been in busi-

ness, Entringer claims his business volume has swelled from around \$100,000 a month to more than \$1.5 million a month. And his payroll has increased from five employees to thirteen.

"I've been very, very fortunate with the small companies I represent," he told *Play Meter*. He attributes that success, oddly enough, to his not having "to commit to large numbers of games from the giants."

Entringer maintains that his company is "like a lot of other new-type distributors who are giving the older distributors a run for their money. The new distributors are eager and aggressive," he says, "and they're going with the smaller companies."

And, in turn, says Entringer, smaller



Len Schneller (center) of U.S. Billiards tells a joke to Dynamo's Bill Rickett (left) and Pacific Novelty's Bill Cravens.



Rick Wood (center) of Venture Line with two operators next to the company's hot video game, Looping.



Alan Stone of Nintendo and Pete Entringer of AVA are still reporting strong interest in Donkey Kong, one of the year's giant hits.



David Goldner with Universal's follow-up to the successful video, Lady Bug. This time it's Snap Jack.

manufacturers are turning more and more to the smaller distributors because big number commitments by the bigger distributors restrict a small company's chances. "A big distributor can actually vote down a game without giving it a fair

chance," he says. He cites two recent offerings by two of the companies he represents—*Solar Quest* by Cinematronics and *Radarscope* by Nintendo. Because of large commitments to the giant video game firms, he claims, these games didn't get a

chance to achieve the market penetration that was necessary. "The way a game becomes a hit," Entringer says, "is through mass penetration. Take *Radarscope*. That was a good solid game that could have been a hit if it had gotten that penetration. But it couldn't. Now if that same game were manufactured by Midway, I've no doubt *Radarscope* would have had a 50,000-piece run."

He claims that, with the proliferation of video games and video game companies, "no distributor—and I don't care how big he is—can represent every line and do justice by it. It's just impossible."

As for Entringer, that suits him fine. With a bona fide contender for top game of the year (in Nintendo's *Donkey Kong*), and a whole host of hot games from such companies as Venture Line (*Looping*) and Pacific Novelty (*Thief*) on his showroom floor—Entringer's not complaining.

Perhaps emphasizing the importance small distributorships such as AVA play in their marketing program, Cinematronics used the AVA open house as the occasion to unveil a new video game—*Naughty Boy*.

The significance? The game marks the beginning of a commitment by Cinematronics to produce more than one game at the same time—just like the giants do.



The AVA open house featured an all-day buffet right on the showroom floor.

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MOM defeats amusement tax proposal

A proposal to impose a four percent gross receipts tax on amusement devices of all kinds in Michigan has been defeated, thanks to the efforts of the Music Operators of Michigan.

The proposed tax was part of a four-week deliberation by the Michigan Legislature in an attempt to bring the state out of its deepest cash crisis in several decades, reports a "special bulletin" from the Michigan Tobacco and Candy Distributors and Vendors Association.

The tax proposal had been considered in 1980 and was stopped, but it was proposed again at a midnight meeting of the House

Taxation Committee on April 6, the bulletin reports.

The defeat of the tax was followed by the passage of one percent income tax increase and a budget slashing move by Governor William Milliken to eliminate \$50 million of expenditures.

"The timing of our opposition, the anti-tax sentiment of the voters, and the four weeks of deliberation by the Legislature all combined to give MOM the opportunity it needed to successfully oppose the tax," the bulletin reports.

MOM was well-organized to lead the battle against the tax. April 13

brought an emergency strategy meeting of operators in Lansing, where nearly a hundred members and concerned non-members showed up. The organization started its drive to defeat the legislation by writing legislators, lobbying by MOM officials Walt Maner and Mike Spanolo, and continuous updating efforts to concerned operators.

"Your association has been tested by the threat of the proposed tax," the bulletin states, "and has succeeded in showing what can be done by an industry acting together—and acting in concert with other effected organizations."

Portland decides on amusement ordinance

"Bad as it is, it's the best one around," says Bob Hasson of Portland's Automatic Cigarette Service about the amusement games ordinance recently passed by the city of Portland.

The tax is expected to assist the city treasury with more than \$225,000 in revenues through permit fees for videos, pool and foosball tables, and pinballs.

The ordinance requires each operator to pay an initial annual fee of \$500 for a business permit within the city limits. Also, game owners must pay \$25 a year for each game placed within the city. Location owners must pay a \$25 annual permit fee for up to three games, \$50 if they have up to six games, \$100 for up to nine games, \$250 for ten to nineteen games on the premises, and a \$500 fee is required for any establishment housing more than twenty amusement devices.

Previously, the city had wanted a \$50 fee to be applied to each video and pin game placed by an operator within the city, but the efforts of operators in Portland were successful in getting the fees reduced and spread out to cover operators, owners, and lease locations equally. Hasson says that the ordinance was, in effect, written by the operators.

The effect of the ordinance has already been felt by operators in Portland who have reduced the number of games they have on location, Hasson says. It has led to an abundance of games in operators' inventory and some real bargains on used equipment.

"Anyone wanting to buy used games really cheap can find them in Oregon," Hasson offers. "We're selling them at prices below what we still owe on them."

Because of the increased fees in the city, some operators have tried to place games in other parts of Multnomah County. This has led the county to consider adopting a similar Ordinance.

"The county has asked us to show cause why they shouldn't adopt an ordinance word for word like the city's to affect all games not located within the city," Hasson says.



O'Connor Distributing Company, Dallas, Texas, and Culp Distributing Company, Oklahoma City, Oklahoma, have been named "Distributors of the Year" by The Valley Company for outstanding performance during 1981.

O'Connor Distributing was recognized as the No. 1 Valley distributor in terms of total sales volume in 1981, while Culp Distributing was cited for the largest increase in Valley purchases in 1981, as compared to 1980.

The award was a pool table/desk designed and manufactured by Valley.



Games People Play Distributing had its spring showing of coin-operated machines April 29 in Corpus Christi, Texas. Approximately 350 operators from south Texas attended the show as well as manufacturers' representatives from Dynamo and Tornado Soccer. Service technicians set up a display showing the latest test equipment and were on hand to answer questions from operators.

Namco initiates U.S. manufacturing effort, joins ADMA

Namco-America, the stateside arm of the Japanese firm that originated many of the industry's top games, including *Pac-Man*, has begun production of its own games in the United States.

Namco's first game to roll off its California assembly line is *Sweet Licks*, an arcade piece designed for the younger set featuring eight Cake Monsters which pop up and retreat back into a cake. To score points, players must give the Cake Monsters a bump on the head before they retreat. The first game came out of the Namco-America plant May 3.

"It has been a desire of Namco to begin manufacturing in the United States for four years," says Joanne Anderson, marketing manager for the firm.

The Japanese firm has a history of

participating in industry associations. In addition to beginning production here, the firm has joined the Amusement Device Manufacturers Association. Its application was recently approved for membership along with a request from Data East, a California-based manufacturer. The announcement of the firms' memberships was made May 14 by Paul Huebsch who hailed the addition of the two firms to ADMA.

Masaya Nakamura, president of Namco, started the Japan Amusement Machine Manufacturers Association in 1980 and has been instrumental in getting American and Japanese games people together to solve mutual problems.

"ADMA is doing lots for the industry and we want to be a part of that," Anderson says.

London Coin throws in the towel

After fourteen years as a leading distributor in England, London Coin Machines closed its doors to business April 30 and was assumed by Entam Leisure Ltd.

London Coin will dispose of surplus stock and fulfill outstanding orders, but all subsequent business—including warranty obligations—will be absorbed by Entam. London Coin was part of a company group known as Trusthouse Forte Leisure Ltd. Entam will continue to purchase and supply machines for the use of the Trusthouse Forte group.

Jim Pryde, managing director of London, said the industry's trade had been suffering badly of late in England.

"The bottom dropped out of the video games market about twelve months ago,

and we, like many other major distributors, got caught with heavy stocks. But apart from that, the whole trade is at a very low ebb at the moment. The group, at the highest level, carefully studied all of the options open to them, but a decision had to be reached and that decision was to cease external trading as such," Pryde said.

The managing director of London's strongest English competition, Nat Solomon of Associated Leisure, said: "This is a very sad day for the industry. When a firm of London Coin's standing and history ceases to trade as a distributor, it is a measure of the effects of the recession and of the difficulties currently affecting our industry. It would be a brave man who would predict that the difficulties will end quickly."

Britain's ATE settles into permanent home

Olympia's National Hall in London, the home of the 1981 Amusement Trades Exhibition, will permanently house the annual British show, according to recent published reports in the British trade.

There had been speculation that the hall would not be available on even-numbered years, but, after lengthy discussions with Olympia's administrators, the show's board confirmed the hall will be permanent venue.

The 1982 show was held in Birmingham, but the location was not judged a success by the show's organizers. Threats that they would have to return to Birmingham every other year encouraged the board to reach a compromise with Olympia officials. In even numbered years, the show will be staged in the Grand Hall and will be held toward the latter part of February. Odd-numbered years will still find the show in the National Hall but in mid or late January.

DIRECTORY UPDATES

Southwest Vending Sales Co.

Dallas Office:

2455 Irving Boulevard

Dallas, TX 75207

Phone: 214/638-7002

General Manager: Tommie Chatten

Game-A-Tron Corp.

New toll-free number:

800/243-0200

Data East Inc.

Santa Clara, CA

General Manager: Bob Lloyd

Mkt. Director: Chuck Ryan

Chief Engineer: Lynn Watson

Leisure & Allied Industries

34 Palmerston Street

Perth, West Australia 6000

Managing Dir.: Malcolm D. Steinberg

(Note: Leisure & Allied have acquired the assets of Goddard Novelty Co. of Australia.)

Games People Play Dist. Co.

4156 S. Staples

Corpus Christi, TX 78411

Phone: 512/855-4811

President: Vic Lakatos

V.P.: Linda Lakatos

Sales: June Lopez

Service Dept.: Jack Corbett &

Bob Lawson

Representing: *Game Plan, Centuri, Game-A-Tron, Dynamo, American Shuffleboard, Nichubutsu, and Amstar*




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GAME PLAY

Enthusiastic players help Jack in his perilous journey up the beanstalk to retrieve treasures and rescue the Princess from the Giant's castle. The adventures up and down the beanstalk hold many different obstacles that add to the game's challenges. The dangers of climbing through the treacherous stalk are magnified by the various creatures that will attack Jack to keep him from reaching the top. The rewards for completing each phase of the climb include both scoring opportunities and special animated cartoons that announce a player's successes.

The exciting action is enhanced by the continuous introduction of new elements to the game play. Twelve different levels of difficulty are included to challenge the player and maintain interest for even more repeated attempts to rescue the Princess in Jack the Giantkiller.

There are five different scenes of action that Jack encounters in his journey to retrieve the treasures. Each scene offers a different play action for optimum variety:

Scene 1—JACK CLIMBS THE BEANSTALK from his cottage through the thick maze of leaves. Gathering beans as he carefully climbs the stalk gives Jack points and ammunition to use against enemies.

In this scene Jack

can be attacked by a woodpecker, caterpillars, a moth or a flying bee depending on the difficulty level. Using the beans to protect himself from attackers will also add to the score and help Jack reach the clouds.

Scene 2—JACK ENTERS THE CLOUDS and carefully makes his way to the castle without falling. Lions and attacking birds cause additional barriers to be avoided by jumping over them or throwing beans at them. Jack must cross the lowered drawbridge to enter the castle.

Scene 3—JACK CLIMBS THE CASTLE STAIRWAY leading to the Giant's room. There are missing stones and steps falling that Jack must avoid as he runs and leaps up the stairs. A cat and mouse running on the stairway create another obstacle to overcome as he approaches the Giant's room.

Scene 4—JACK ENTERS THE GIANT'S ROOM and must climb up platforms and stairs to reach the top of the table where the treasures are seen next to the sleeping Giant. Flying magic lamps try to keep Jack from reaching his goal. As an extra bonus scoring feature in this scene, Jack can catch falling golden eggs from the Goose in his hat. The Singing Harp, a Bag of Gold, The Goose that Lays Golden Eggs and the Princess are all waiting to be retrieved. After getting the item that is flashing, Jack must safely return home.

Scene 5—JACK CLIMBS DOWN THE BEANSTALK with each treasure he retrieves. While climbing down, the Giant tosses rocks at Jack to challenge his descent. With quick responses he can reach the cottage safely and be ready to start again to get the next item. After rescuing the Princess, Jack chops down the beanstalk; Jack then begins his adventures again at an even higher difficulty level.

Colorful Jack the Giantkiller decal available for your promotions.
Contact your local distributor or Cinematronics for details.



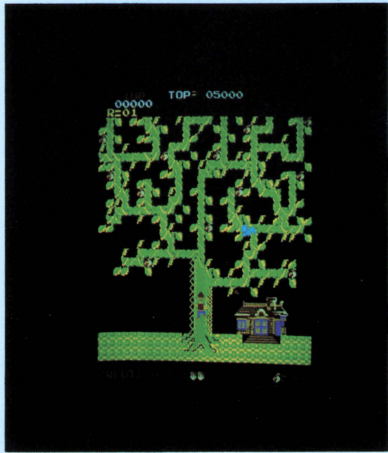
JACK the GIANTKILLER™

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with Jack's adventure
up the beanstalk.....

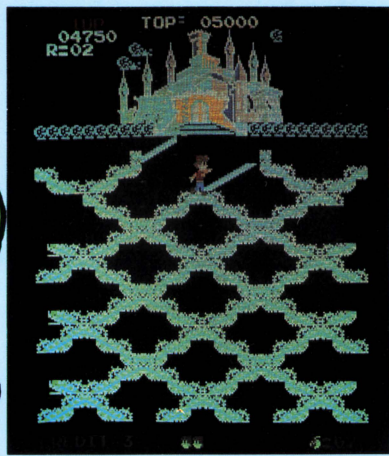


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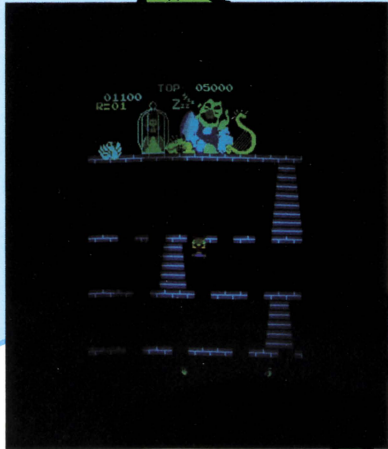
Jack climbs the beanstalk



Jack enters the clouds



Jack climbs the castle stairway

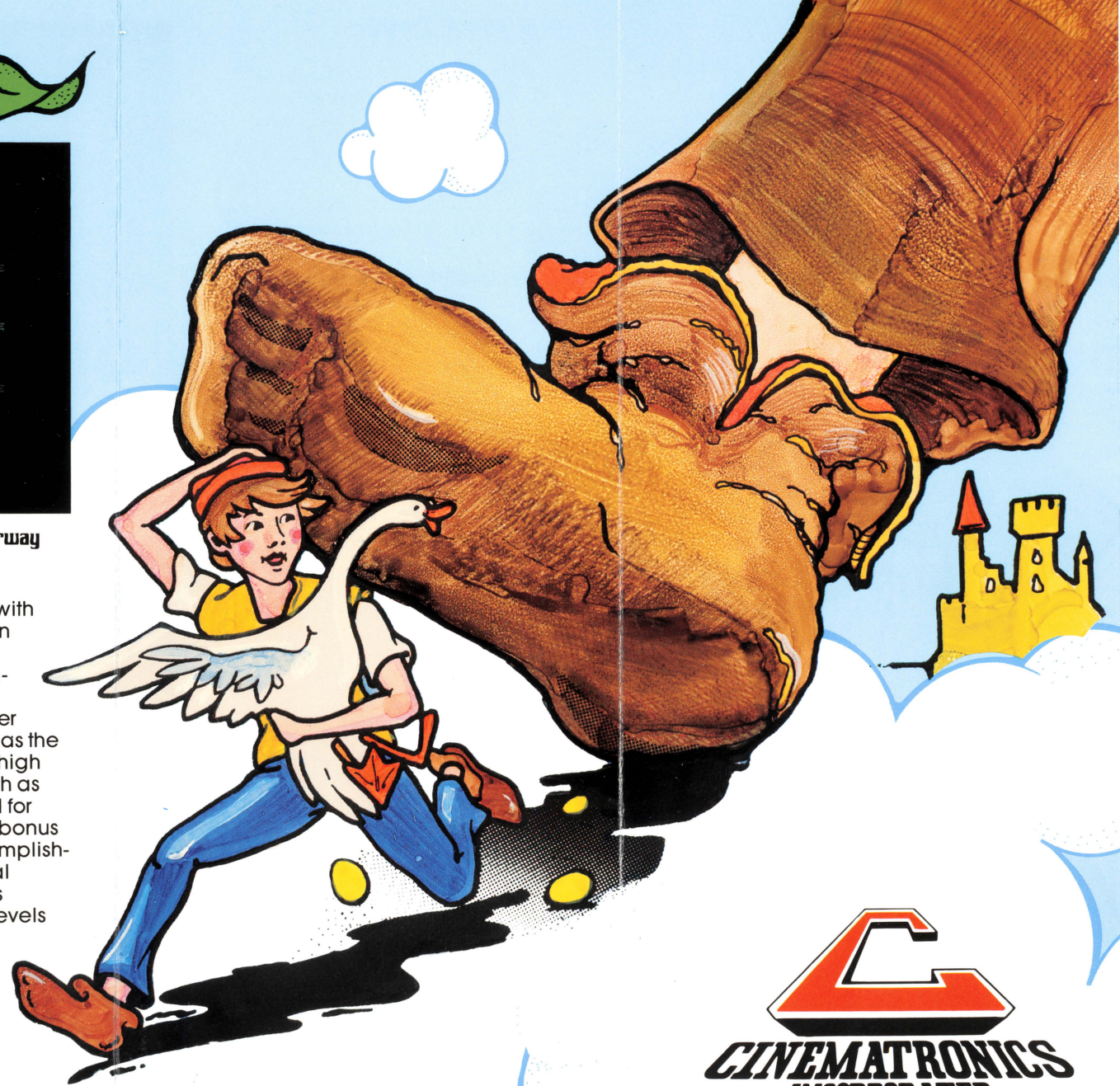


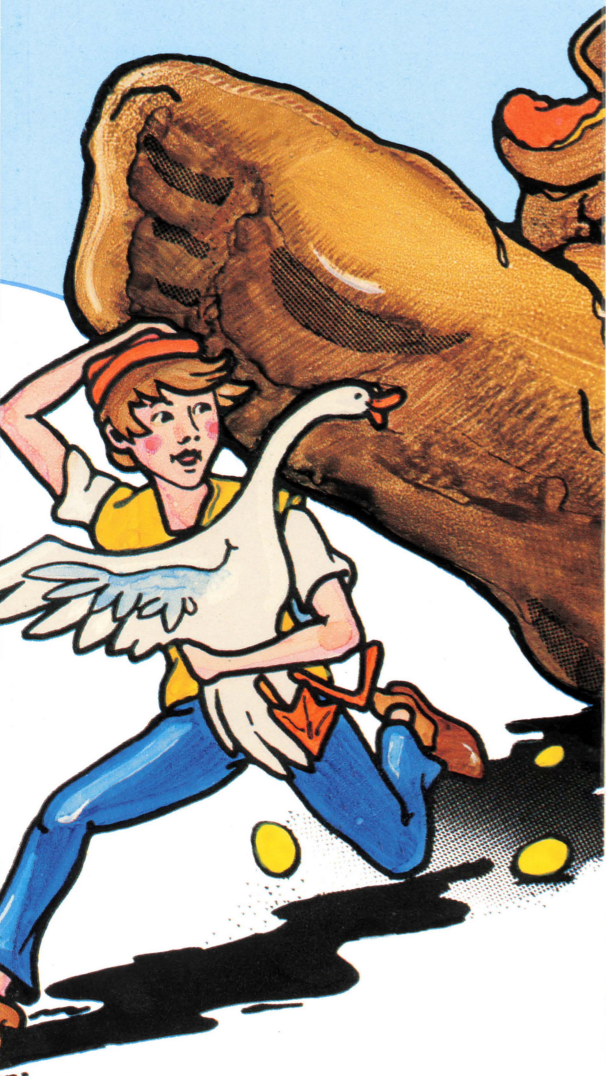
Jack makes his way to the Giant's table



Jack Rescues the Princess

Jack the Giantkiller is filled with new surprises that keep on challenging players. Twelve different combinations of difficulty factors are marked by the number and types of adversaries as the game progresses. Many high scoring opportunities such as extra points are awarded for each completed scene, bonus rewards for scoring accomplishments and the extra visual recognition for successes encourage high replay levels on Jack the Giantkiller.





PLAY FEATURES

Jack the Giantkiller is designed to maximize operator flexibility with minimal need for maintenance. The game features Cinematronics' high quality engineering and durability for higher play activity. It is built to include the best features for ease of operation and selectable options:

- Four different coinage settings.
- Three of five "Jacks" per game.
- Two alternative bonus settings.
- One or two "beans" picked at a time.
- Two difficulty level options for the start of the game.
- Free play switch for demonstration or special promotions.
- Complete hardware diagnostics check switch.
- Choice of a sleek cocktail table design or upright cabinet style.

SPECIFICATIONS

Jack the Giantkiller features Cinematronics' superior engineering and workmanship. It is designed for maximum quality and durability in operation. A high quality 19" color monitor is used giving excellent color, resolution and trouble-free operation. Built-in hardware maintenance checks together with the backing of a well qualified Customer Service staff will provide technical assistance in the field. A toll-free service number is available for all Cinematronics customers—**(800) 854-2666**.



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Dimensions:
Unboxed:
Boxed:
Weight:

Upright Cabinet
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H 75 $\frac{1}{4}$ " D 33" W 29"
280 lbs.

Cocktail Table
H 27 $\frac{3}{4}$ " D 36 $\frac{1}{8}$ " W 25 $\frac{1}{2}$ "
H 33 $\frac{1}{4}$ " D 38 $\frac{1}{2}$ " W 28"
230 lbs.

OPERATOR FEATURES

- Colorful cartoon animation on completion of each level offers extra rewards for player accomplishments.
- Bonus points are awarded for successful completion of each of the five scenes.
- Twelve different difficulty levels provide continuing new challenges for more skilled players.
- One extra "Jack" is awarded at 10,000 points and can be set for each 10,000 points scored.
- New adversaries appearing keep the game action moving at a fast pace to keep interest levels high.

PROMOTION OPPORTUNITIES

Jack the Giantkiller has a built-in promotion incentive to play Rescue the Princess. Special promotions can be used to encourage higher play activity by rewarding players who reach this goal. Feature photos of players who Rescue the Princess in the game location. Give special prizes to the first ten players to meet the ultimate goal of the game and other recognition for those who reach the different plateaus in the game.

A colorful decal is available and can be used for display in a window, by the change station in a game center or other place to suggest play of Jack the Giantkiller. These decals can be obtained by writing directly to Cinematronics Marketing Department. They can be used in various ways for promotion and to advertise the exciting Jack the Giantkiller game.

Distributed by:

Pizza Time on a roll

New pizza and games restaurants are opening at an impressive rate nationwide. Some are one-store-only operations, others are attempting to franchise outlets almost after their first opening. But all restaurants will have to go a long way to catch up with the concept's innovator, Pizza Time Theatres.

While releasing its revenue figures for the first quarter of 1982—figures which show a take of more than \$17 million for its

100 centers—the company was also announcing the establishment of a games manufacturing division.

The Hollister, California site will produce cabinets, play structures, and other equipment used in its theaters. Additionally, Chuck E. Cheese's manufacturing arm will begin designing and producing non-video coin-operated games and a new line of educational games for children aged three to ten.

PlayCable aims at nation's homes

PlayCable, a joint venture of Mattel Electronics and General Instruments Corporation, is aiming to make home video games available to the nation without the purchase of video cassettes.

Marketing Director Jo Anne Chase told *Play Meter* that PlayCable has contacts with cable companies throughout the United States and expects to be in operation in some sites from coast to coast by the end of this year.

The PlayCable system offers fifteen Mattel Intellivision games each month to subscribers of the participating cable

system. The subscriber must have the hardware to play the games, but the main attraction of the system is the elimination of video cassettes. Sources indicate that the games can be played on Mattel's Intellivision Master Component or on the Sears Super Video Arcade. Each month, PlayCable changes out three or four of the Intellivision games, Chase says.

PlayCable is available in New York, New Jersey, and Connecticut. Chase says immediate plans include a system in North Carolina. Contracts in parts of California and Florida have also been signed and these systems are waiting installation.

G.D.I. switches parents

G.D.I. Inc. of Chicago has been taken over by Destron Inc., an Illinois firm which is publicly marketed under the symbol PLAY. Destron, the manufacturer of *Astrology*, *Biorhythm*, and other coin-operated machines, now moves into the video game and slot machine field with its new acquisition.

G.D.I., previously owned by Xcor International, was sold at a reported \$1.5 million.

Bruce Mullins moves over from Destron to direct G.D.I. Mullins' history in the coin-op amusement industry includes several years with Seeburg. Bob Breither remains as G.D.I. marketing director.

Breither told *Play Meter* that G.D.I. will continue to produce the cocktail version of *Thief*, but Destron's plans are to move the company into a broader occupation with video games by pursuing licensing agreements and developing its own pieces.

Rock-Ola eyeing video success

Rock-Ola Manufacturing's Donald Rockola has agreed with Techstar of Miami, Florida, to market Techstar's video game *Eyes*. The agreement was concluded at a meeting in Chicago with Techstar's president Bill Olliges. Olliges also heads up the Association of Independent Manufacturers, organization for small manufacturers.

"*Eyes* is a sophisticated, highly responsive strategy game, and we are pleased to acquire *Eyes* for the coin market," states Rockola. The game utilizes "hunter eyes," which challenge the player's defensive and

strategic playing abilities.

"*Eyes* is an entirely new concept which will give Rock-Ola distributors an excellent game geared to those skills players have already developed on other current popular video games," Rockola states.

Rock-Ola, best known for its jukeboxes, has been manufacturing video games for the past year. "We are confident that *Eyes* will place Rock-Ola in the forefront as a quality video game manufacturer," Rockola states.

Eyes will be available in both upright and cocktail table models.

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MACHINE NAME LOCATION MACHINE #/TYPE	PAC-MAN RC # 900 /VID
GROSS REVENUE	\$ 200 00
LOCATION COST	\$ 134 52
ADMIN COST	\$ 23 01
NET PROFIT	\$ 42 47
BOOK-VALUE	\$ 2200 00
ANNUAL ROI	100 66%
ENTER (1=TOTALS ONLY)?	

OPERATOR'S INVESTMENT ANALYSIS (MONTH= 5 DAYS= 7)	
MACHINE NAME LOCATION MACHINE #/TYPE	PAC-MAN PR # 901 /VID
GROSS REVENUE	\$ 200 00
LOCATION COST	\$ 165 58
ADMIN COST	\$ 23 01
NET PROFIT	\$ 11 40
BOOK-VALUE	\$ 2200 00
ANNUAL ROI	27 03%
ENTER (1=TOTALS ONLY)?	

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NEWS BEAT

Exidy offers Mousetrap enhancement

Exidy is marketing an enhancement kit to help prolong the life of its *Mousetrap*. The Sunnyvale, California, company has made the kits available to operators through its distributors.

Additionally, the company has expanded research efforts by appointing Arlen Grainger as market analyst. Grainger will assist the company in new product development by keeping a running analysis of the video market.

Grainger is not new to the Exidy operation. He has been with the company for eight years working in the engineering and customer service departments. He is credited with the creation of *Targ*, a successful piece for the company in 1980.

The firm also announced the inception of a newsletter to distributors and operators detailing the company's latest product developments. The "Exidy Express" is available to anyone who requests being placed on the mailing list.

CALENDAR

June 26—27

Empire Distributing Follies '82, Fuerst Auditorium, Novi, Michigan

July 16—17

Montana Coin Machine Operators Association convention, Outlaw Inn, Kalispell, Montana

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

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

PLAY METER, June 15, 1982



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Broker is bullish on Bally

While there is widespread concern among institutional investors that the video game business is facing slowed growth and sharply rising competition, at least one major brokerage firm believes that Bally Manufacturing is still a good investment.

Miami news columnist Dan Dorfman cites the brokerage firm of Ladenburg, Thalmann & Company which is pitching Bally to some one hundred institutional investment companies here and abroad.

Though the firm's report is partially based on expectations that gambling will be legalized in Pennsylvania, New York, Michigan, and Louisiana, thus providing a tremendous boost to Bally's gaming equipment division, the feeling is also positive on Bally's potential to sell plenty of video games in 1982 and beyond.

Bally President Robert Mullane told Dorfman that all Bally divisions, excluding slot machines, are beating last year's revenue figures. Included in the Bally ballpark is the recently acquired (January 1982) Six Flags amusement parks and more than 350 Aladdin's Castle family amusement arcades which, according to Ron Koenig of Ladenburg, Thalmann, "give the company almost a motherhood image."

Bally's chief investment enticement, the article says, is its "booming" video game business (40 percent of its '81 sales and more than 40 percent of its profits). Though there are fears that Bally may not match its '81 figures, so dramatic because of the sale of 96,000 *Pac-Man* games, company executives predict that *Ms. Pac-Man* will fill the void with almost as many sales as her predecessor.



A new 60-by-23-foot island booth provided more-than-ample opportunity for operators and distributors to play Sega/Gremlin's new line of video games at the recent Chicago AOE show.

Kaufman resigns from Stern

Stephen Kaufman, president of Stern Electronics' coin-operated amusement games division has resigned.

"Stephen has been a valued member of our company since the time it was formed," says Gary Stern, president of the firm. "We wish him well in his future endeavors." Stern and Lawrence Siegel, president of Stern Electronics' Seeburg phonograph division, will assume Kaufman's corporate responsibilities.

Meanwhile, Bob Lentz was named sales manager for the Chicago firm. Lentz comes to Stern from Xcor International where he served for more than eight years, working closely with distributors and

operators on a national basis. In his new position, he will be responsible for the administration of sales activities for the Stern game line as well as Seeburg phonographs.

Stern also appointed Ed Zylka, an industry veteran, to their newly expanded field service department. Zylka comes to Stern from Liaros Vending, where he worked as a service technician. He will assist in the administration of the company's toll-free service hotline.

In other Stern moves, the company expanded its distributor network by adding Northwest Sales Company of Seattle, Washington.

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Paul Jacobs finds new home

Paul C. Jacobs, former president and chief operating officer of Universal U.S.A. Inc., has found a new home with Thomas Automatics, Inc. as vice president-marketing and a full partner in the firm.

Jacobs, a nineteen-year veteran of the industry, previously held executive positions with Chicago Dynamic Industries, Vectorbeam Inc., and Exidy Inc. Prior to his experience in the manufacturing business, he owned and operated his own distributing business in Milwaukee, Wisconsin.

Thomas Automatics Inc., completing its first year as a manufacturer of coin-operated video games, is principally marketing a line of counter-top and cocktail-table games. Recently the company moved into a new 37,500-square-foot facility in the heart of Silicon Vally (Santa Clara, California).

Jacobs's partners in Thomas Automatics are Thomas Tol, Kyle Field, and Michael Germono. Tol, founder and president, originally was in the video game business in his native Holland for about six years. After coming to the United States, he worked for a Midwestern coin-machine

firm for two years, then moved to California to start his own company, Thomas Automatics.

Fields, vice president-engineering, was Tol's original partner in Thomas Automatics and provided the design expertise for its initial product. He is completing a new hardware system which is reported to have extensive software capability. An original game is being developed on this system for introduction to the trade at this year's AMOA show in November, said Jacobs.

Germono, vice president-manufacturing, started in the video business as general manager of Project Support Engineering of Sunnyvale, California. After leaving PSE, he co-founded Diversified Wood Products, a supplier of cabinets to the game industry. After selling his interest in DWP, he formed Timberline, a new cabinet company which has been merged into Thomas Automatics.

"All of us at Thomas Automatics are enthused about the future of the video game business and the role we intend to play in it. We, indeed, intend to be a factor in the marketplace," Jacobs stated.



Arnold A. Kaminkow

Kaminkow to preside over Centuri

Arnold A. Kaminkow, former president and chief executive officer of Bally Northeast Distributing has been named president of Centuri, Inc.

"We are extremely pleased to have a man of Arnold Kaminkow's caliber heading up our management team at Centuri," said Milton Koffman, chairman and chief executive officer of Centuri. "We're certain his extensive experience and vast knowledge of the industry will be a tremendous asset to the company."

Prior to joining Centuri, Kaminkow spent seven years as executive vice president, president, and CEO of Bally Northeast Distributing Inc. During his tenure with the Massachusetts-based firm, sales jumped from \$2 million in 1974 to \$50 million in 1981.

Georgia operators meet

The Georgia Amusement & Music Operators Association (GAMOA) recently held its first annual meeting at the Greater Southern Amusement distributorship in Atlanta, Georgia. Approximately fifty operators attended the meeting.

GAMOA elected officers, conducted general business, and discussed the local impact of zoning regulations, sales taxes, and licensing. They also discussed ways to counter negative publicity that might be unfairly directed toward operators and ways to improve the image of local game rooms.

Newly elected officers are: Roy Echols, treasurer; Barbara Broyles, secretary; Don Hankinson, president; and Bob Plato, vice president. Les Schneider has been retained as the association's attorney.



Mike Massey, Valley trick-shot artist and magician, casts his spell as he draws a bead on the 8-ball at the IMA (International Amusement and Vending Trade Fair), in Frankfurt, West Germany. Watching closely are Charles P. Milhem (left), Valley Company president, and Dr. Gunther Fleuchaus, a Valley distributor in Dusseldorf, West Germany. Valley found that recent television exposure has dramatically increased European interest in pool.

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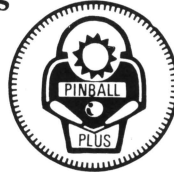
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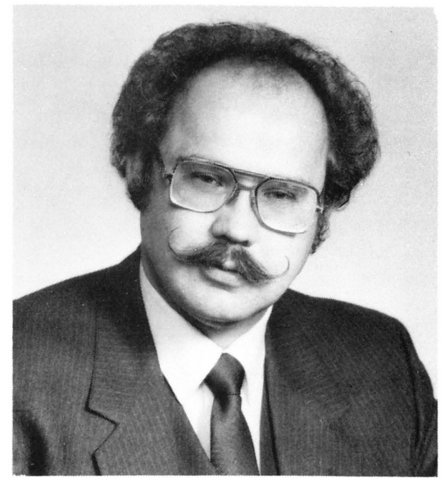
Belam Co. of Lake Success, New York is now distributing Sega/Gremlin video amusement game products throughout the greater New York area. Belam has long been a distributor for Sega/Gremlin through its Miami, Florida distribution operation.

"We are pleased to announce the addition of Belam in New York as a new distributor," said Duane Blough, president of Gremlin Industries, Inc. "The appointment reflects the excellent job they have done for us throughout the years in Florida."

Belam in New York, as in Florida, now carries the complete line of Sega/Gremlin products.

"The addition of Sega/Gremlin products to our New York office comes at a perfect time," said Marc Haim, president of Belam. "It coincides with extremely high operator demand for Turbo and Zaxxon products."

Belam in New York is fully stocked with Sega/Gremlin game parts and its staff of service professionals is fully trained in operation and repair of the product line.



Egging named

Keith J. Egging has been promoted to vice president of project development for Taito America Corporation.

A 29 year veteran of the coin industry, Egging has been creative development manager at Taito America for the past four years.

His expanded responsibilities include new product conception and development, product diversification, and supervising special projects. He will report directly to President Jack Mittel.

"In the coin industry," Mittel said, "a company's fortunes are decided by a handful of dedicated and versatile people working under pressure. Our record of success is proof that Keith is a pressure player. His promotion is proof that he has thrived in this atmosphere."

Gorman to Game Plan

Hugh Gorman has been appointed director of marketing for Game Plan Inc., an Addison, Illinois, based firm.

Wendell McAdams, vice president and chief operating officer, said: "We are pleased to add Hugh to our staff, and we are confident that his twenty years experience in the industry will contribute appreciably to Game Plan's growth."

Regarding future plans for Game Plan,

Gorman noted that "many exciting new products and programs are under development at Game Plan. It is our corporate intent to provide the industry with the optimum in profit producing equipment. In addition, our equipment will be marketed through the finest network of distributors available to the trade so that operators and distributors' acceptance of Game Plan products is insured."

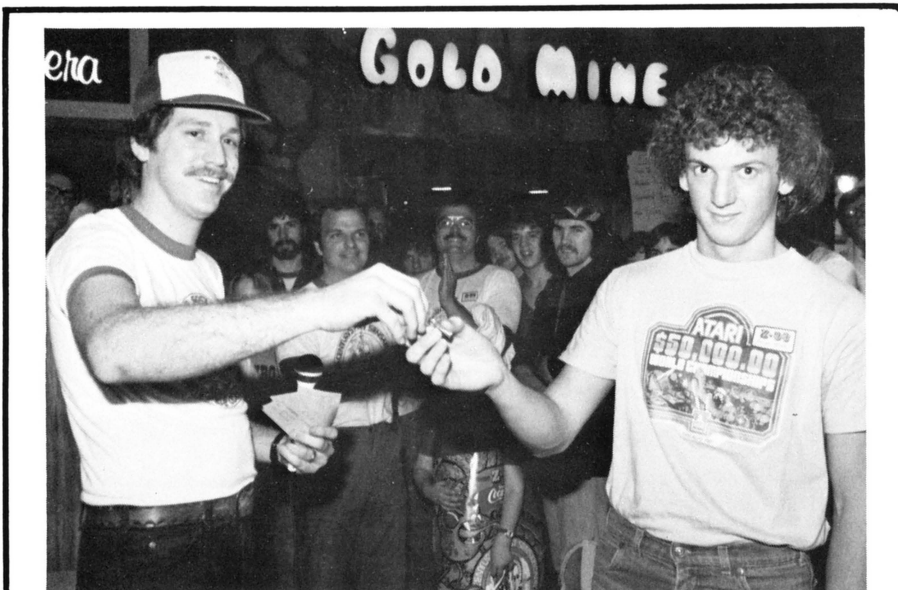
Bally names

Donald B. Romans has been elected an executive vice president and chief financial officer of Bally Manufacturing.

Romans was recently associated with Sunbeam Corporation as an executive vice president and its chief financial officer since September 28, 1981. Sunbeam was recently acquired by Allegheny International.

Previously, Romans had been associated with Trans Union Corporation of Chicago since 1962 and was executive vice president and chief financial officer and president of Trans Union's leasing subsidiary, Trans Union Leasing Corporation. Trans Union Corporation was acquired on February 10, 1981, by the Marmon Group.

According to Bally President Robert Mullane, "Mr. Romans brings to Bally an excellent background of financial expertise and senior management experience. With Romans, Bally will be further enhancing its senior management depth and flexibility which are so important to a corporation of Bally's size and broad operating scope."



The Gold Mines served as exclusive locations for "The Century's First Sensational Centipede Conquest," an \$8,000 tournament held in late March in Atlanta. The promotion was staged in the company's five game rooms in Atlanta malls. The Gold Mines are owned by Dallas-based Nickels and Dimes, Inc. Here, Jim D'Engle presents keys to a new Centipede to tournament winner Stephen Jones.

Aladdin's Castle promotes three

Aladdin's Castle, the arcade chain that is a subsidiary of Bally Manufacturing, has made three executive appointments.

John Menzer has been appointed director of finance, Phillip Faris has been named director of human resources, and Ron Malinowski has been selected as associated director of equipment and logistics.

Menzer will direct both the financial and accounting groups and will be responsible for long-range financial planning and the continued development of strong financial controls required for the division's expansion program.

He will participate in the evolution of the Bally's operations group. This group encompasses Bally's Aladdin's Castle Inc. Bally's Tom Foolery, Bally's LeMans Family Fun Centers, a service division providing amusement game management to Six Flags theme parks and amusement centers, and various foreign amusement game operations.

Faris will provide staff and line assistance to the managers of Bally's Aladdin's Castle Inc. to enable them to meet the expansion goal of the national scope amusement business.

Announced growth objectives indicate the potential doubling of numbers of employees (from 1,200 to 2,500) in the future.

Faris will also participate in the evolution of the Bally's operations group.

Malinowski will assist the director

equipment and logistics in the daily operations of this department.

Also, he has been delegated to directing the management and administrative personnel concerned with traffic, equipment sale, purchasing, property ledgers, and related clerical functions.

TS table still alive and playing well

In the wake of the world championships fiasco in Chicago this year, some distributors and operators have assumed that the demise of Lee Peppard meant the subsequent demise of the Tournament Soccer tables he represented.

"He marketed the games for us, but we manufactured them and continue to do so," said Donald Spetkar of Sutra Corporation.

"We have been getting many calls from operators asking where to purchase our games," he said. "We have been telling them to contact our distributors."

Basically, the network of distributors is

the same as before for the Tournament Soccer products. "We have even added a few lately," informed Spetkar.

Spetkar said that operators will want the table which became the industry standard, and even though the bad publicity from the tournament hurt Sutra initially, sales have rebounded and are at a brisk pace again.

"To tell you the truth," Spetkar commented, "I've been swamped with calls. The tables play so well that demand continues to rise. Others are trying to imitate our table, but we have the industry standard."

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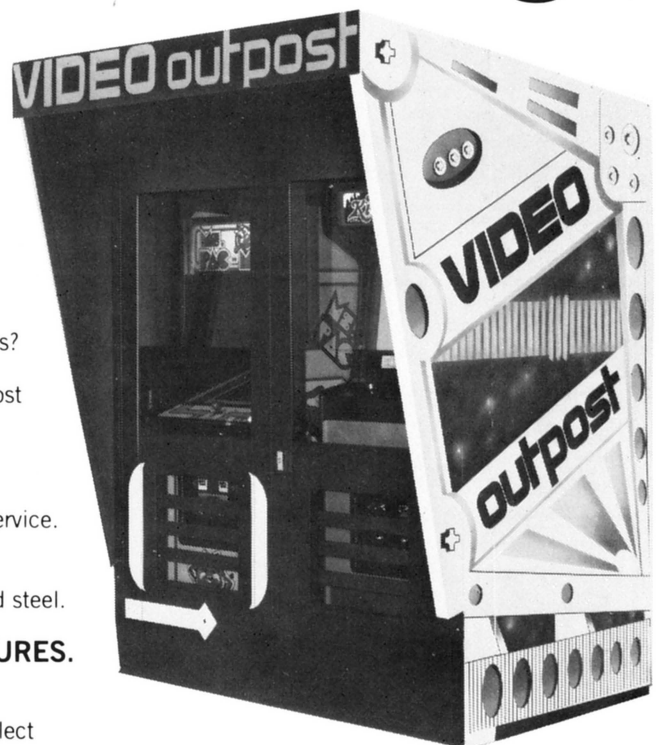
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North Jersey operators unite

Perhaps more than in any other state, New Jersey operators have been besieged by adverse local legislation. Such a deluge of ordinance writing has caused them to spend as much time politicking as they spend working. But now, just as in many other parts of the country, operators are banding together forming new local associations to deal with the problems *en masse*.

The North Jersey Amusement and Music Operators Association is just eight months old. It was formed to help defray legal costs in challenging unfair local ordinances.

James Cuccio, the association's chief and also the owner of Chess Amusements in Lodi, recognizes that individual operators have trouble fighting the prohibitive ordinances because court costs are overwhelming. He wants standard regulations established statewide and said that NJAMOA will pursue that effort in New Jersey courtrooms.

The operators are grappling with age restrictions, the number of machines allowed in any one establishment, the hours during which the games may be played, and the distance games must be

located from schools, churches, and each other.

Recently, New Jersey operators won a significant court decision when a Superior Court judge overturned a Garwood city ordinance that prohibited play by people under eighteen. That decision is expected to pave the way for other favorable rulings in New Jersey. In fact, several counties throughout the state have requested copies of that decision so they can examine any impact it could have on their current statutes.

In fact, Cuccio claimed, age restrictions are on the way to elimination in his state, and if they are a thing of the past in New Jersey, could the rest of the world be far behind?

The North Jersey association's main drive has been to reduce prohibitive licensing costs.

"Why should we be set apart, arbitrarily, from other businesses?" asked Cuccio whose expertise in dealing with town councils was finely tuned during six years as Lodi's councilman and two years as its mayor.

The association is suing the New Jersey towns of Garfield and Union City where

excessive licensing costs have made doing business at least improbable, if not impossible.

"We would like to see a statewide licensing fee of \$25 per game. We think that would be fair," Cuccio said.

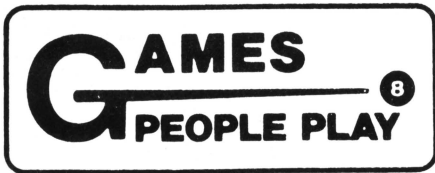
What isn't fair, said Cuccio, is for townships to burden one industry for their increased needs. If a city needs an additional one or two percent revenue, let it spread the burden evenly.

The North Jersey association will merge with the state association to help coordinate their statewide objectives. But even before that merger, Cuccio and his operators have already found that organizing helps; it is even a necessity.

"We knew we wouldn't be able to survive at the rate they (licensing fees) are going. Now, by organizing, we have found that we will get concessions," he said.

Cuccio said he always has at least twenty operators at a meeting, and the time and money spent by operators to get things done is not as burdensome as one might assume.

"Organizing costs the average operator about \$100 to \$500 a year, and we meet about once every five weeks," Cuccio said.



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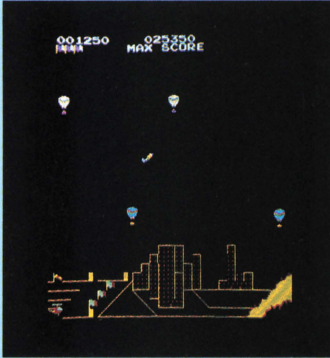
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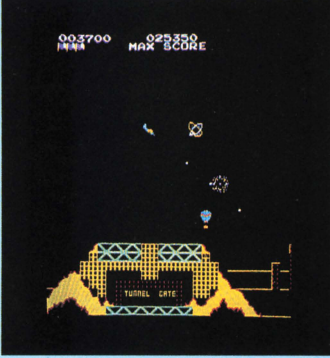
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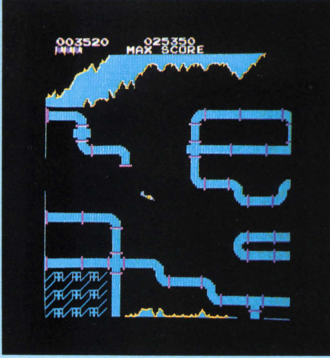




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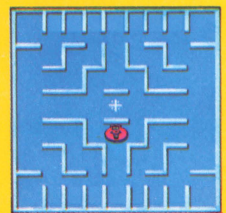


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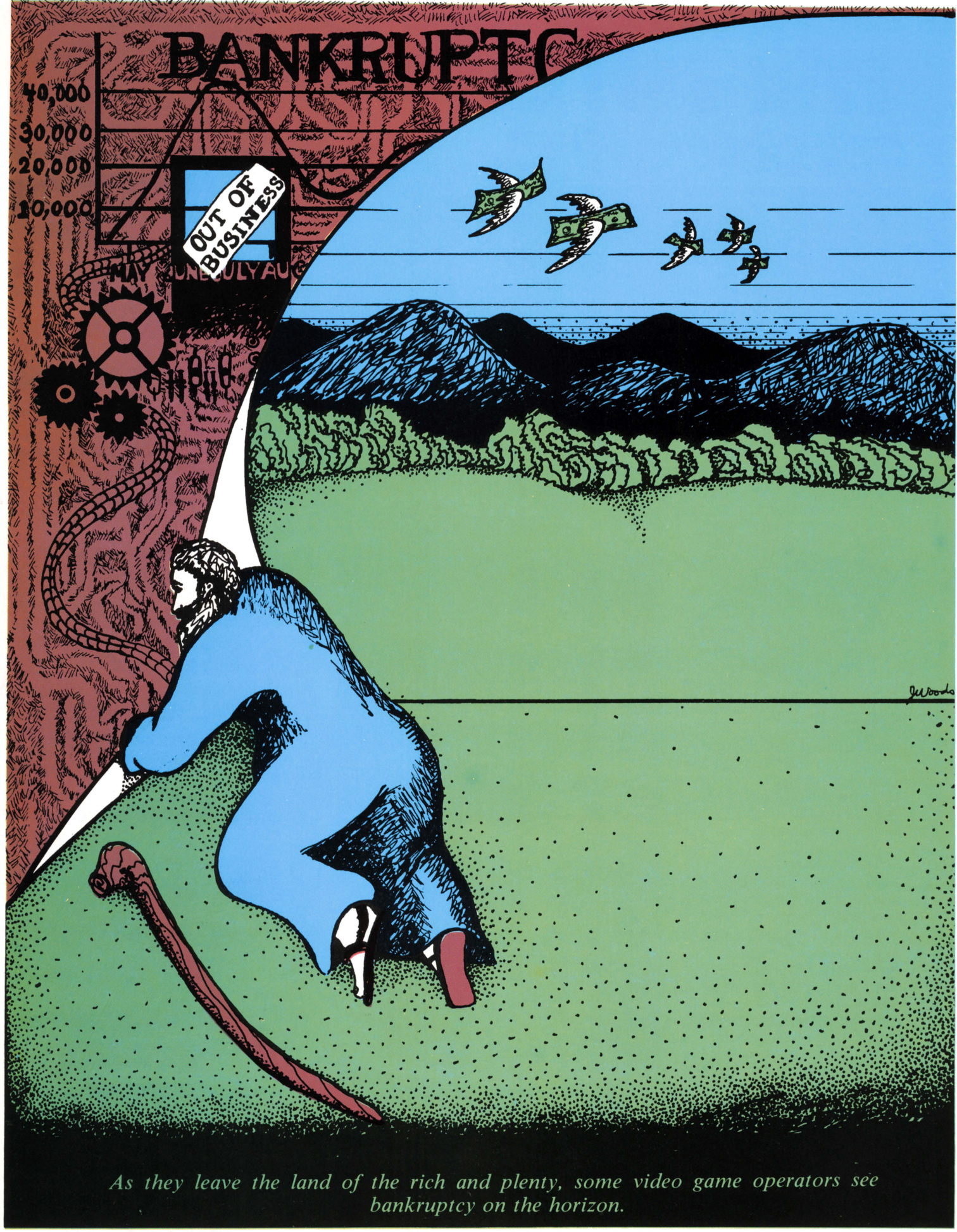


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As they leave the land of the rich and plenty, some video game operators see bankruptcy on the horizon.

Video Industry Directions

By Mike Mendelsohn

The place is southern California. It is springtime 1982. The general feeling among video game operators is "pessimistic." Wait a minute! Isn't this the video game business? The land of rich and plenty?

What happened to the fabulous claims being made by nearly everyone at that time in 1979, 1980, and 1981?

It seems as though, for many game operators, the tide had turned. Bankruptcy is becoming a not uncommon term to this industry in southern California.

Let's go back to the beginning of the revolution in the game industry to understand how this instability developed. About three years ago, a video game by the name of *Space Invaders* was introduced by Midway. "An interesting game," most of us said, "but maybe a little too strange for an investment of \$1,700." The attitude was, "let's wait and see." The profits from *Space Invaders* proved it was indeed a bargain, a better investment than any game produced before it. When the industry realized how it had caught on, orders poured in, and demand far outweighed supply. *Space Invaders* went on to be the highest selling video game yet produced.

So for many of us, the summer of 1979 was a very good one, mainly due to installing *Space Invaders* in our better locations. Then came in the fall of 1979 another game equally as different as *Invader*, introduced this time by Atari. The attitude was once again, "wait and see." The price started at \$2,300 (selling later in the run for much more), and this was a pretty outrageous sum of money to pay for such a funny looking game. The game was *Asteroids*, and its fabulous success surprised all of us (including Atari). *Asteroids*

took over from *Space Invaders* as the hottest game around. The demand was extraordinary and propelled Atari into the leadership of the video game industry. Soon afterward, *Galaxian* came out by Midway; it did not enjoy the tremendous success of *Asteroids*, but it too was a hit game in its own right.

By the spring of 1980, it was quite apparent that *Asteroids* and *Galaxian* were the games to have in most of your locations. The summer of 1980 was the best ever for operators as revenues from these games were fabulous with *Invaders* still hanging in there (although somewhat less than the previous year).

Most of us went into the fall of 1980 flying high! Revenues were high for those who purchased right (and that was easy to do at this time in the industry). Soon *Asteroids* and *Galaxian* collections were beginning to soften a little, but no one was complaining yet. In fact, we were hungry for more! The fall of 1980 offered us some new choices for the next generation of hits.

The choice was now getting more difficult, as many new and established manufacturers wanted a piece of the pie. Dozens of new games were being introduced. The favorite choices were *Battlezone*, *Star Castle*, *Berzerk*, and *Pac-Man*.

Battlezone was the hit of the fall preview; it was challenging and exciting with three-dimensioned effects and a working radar system. The price (\$3,000) was a bit higher than the other games available, and this slowed down, somewhat, the number of *Battlezones* sold.

Star Castle was another "shoot'em up" space game, following in the tradition of *Asteroids*, *Galaxian*, and *Space Invaders*.

Berzerk and *Pac-Man*, however, were

very different than the usual space mold. The next six months would indeed be an anxious period while each operator made his educated guess as to which games to buy.

Moving into January of 1981 here were the results: (a) *Battlezone* had started well and then fell flat on its face. Distributors were soon selling them new in the crate for \$895. Operators who had bought them were trying to figure how to make their payments when gross revenues coming off the games had dropped between \$50 and \$75 per week, and apparently were still falling. Locations were demanding them out and better games put in to take their place.

(b) *Star Castle* started strong and slowly died out. By spring, it was evident it too did not have the staying power operators were looking for.

(c) *Berzerk* looked like the big winner. Revenues began nearly as high as *Asteroids*, and sales of the game were high as well. But by summer, *Berzerk* had also dropped off—another big disappointment.

(d) *Pac-Man* started off doing well, not great. Revenues from this game stayed level throughout the summer of 1981, and it wasn't until after the game received all its publicity that it began to increase to "hit game" levels. *Pac-Man* sales went wild, and Midway again had the hottest game of all time. Meanwhile, an incredibly challenging game called *Defender* was introduced by Williams. *Defender* became an overnight sensation and propelled Williams into the limelight.

With mixed optimism, the industry moved into the summer of 1981. Those of us who bought right were still riding high. Those stuck with too many *Battlezones*,

Star Castles, Berzerks, and other not-so-hot new games, were counting on summer vacation to help them get through rough times.

Meanwhile, the publicity that the video games was getting was moving us to the saturation level. The media played on the tremendous success stories of the incredibly hot locations. Buy some video games, and find someone who will let you put them in or lease a space for an arcade and you will be rich beyond your wildest dreams. Eager to cash in on the video craze, arcades were being opened everywhere with little regard to the foot traffic needed to keep them profitable. Games were put in bakery shops, laundromats, gas stations, etc. Everywhere you looked, you found another video game. As the games being installed were new and novel, and saturation had not yet fully been reached (not to mention summer is obviously the best season for games), most of these operators were able to make a decent living through the summer.

However, when summer ended, a number of dreadful realities were being faced: (1) Saturation was cutting per game revenue; (2) The *Asteroids*, *Galaxian*, and *Invaders* whose revenue had kept us going were dropping quickly, and the market to sell them was not very good; (3) The games we had guessed wrong on, like *Battlezone* and *Star Castle* were a huge drain now that summer vacation could no longer support them; and (4) Many of the locations which looked good in the spring and summer were real losers in the fall.

Now, the realities are hitting the hardest. Operators who had risked badly are out of business. Arcades which had opened in inconspicuous places are closing up. Many of the others still operating do not make enough to be able to afford to bring in the hottest new games, and profits are marginal at best.

The fallout of marginal video game operators is, for the most part, the natural process of a growing industry which grew too fast. A new growth pattern will most likely appear evident during 1982. The new direction of the industry will be in three areas: (1) Continued improvement and investment in the better game locations; (2) The expansion of successful corporate chain concepts combining games with other attractions; and (3) The opening up of successful restaurant chains to video games for the first time.

This new growth will cause another fallout of marginal game operators in the late fall and winter of 1982. This second one should be a little less catastrophic as most of these operators will have substantially greater equity in their machines. The loans they took out to pay for them will be paid down to a greater extent; hence, they will go out of business more quietly. Less bankruptcies will be declared and fewer lenders left holding the bag.

Enough for the dismal cries of despair. There is a good side to all of this. The massive influx of new people into the video game market has also brought with it new outlooks on a sometimes archaic industry. They have brought with them new con-

cepts of marketing and promotion and a glamorization we never had before! The playing population has increased significantly. *Pac-Man* and *Ms. Pac-Man* have increased the average playing age and attracted women to play games for the first time. We are being taken seriously by many types of locations, which would not have considered video games before, and our lending institutions no longer turn deaf ears to our financial needs. So, the "new blood" has brought definite advantages with it.

As for the operators who have kept a good overview of their operations, saw past the deceptive horn of plenty, and kept to business as usual, they are being rewarded for their patience and good sense. As games are being pulled from places they never should have been, saturation is slowing down, and in some areas, reversing itself. As we put the hot new games in our good locations, more players come to us instead of to those who cannot afford to upgrade their games.

The industry is returning to a place where good businessmen succeed and poor one fail. I feel badly for those who have hit hard times. Not all of them were entirely responsible for what happened to them. Those of us who made exaggerated claims to the media, or told just the good and not the bad, share much of the blame. The bloom is off the rose. Or as John Houseman says in his commercials, "We will now make money the old-fashioned way. We'll have to earn it!" I, for one, will enjoy earning it more the old-fashioned way.

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Video Copyright: The ROMs and Reasons

Richard Stern

The defense dissents

By Mike Shaw

Richard H. Stern is a noted attorney and writer in the field of patent and copyright law, and especially computer copyright law. He is currently employed at the Washington branch of the Cleveland based firm of Baker and Hostetler. Previously he served as chief of the Intellectual Property Section of the antitrust segment of the Department of Justice. Stern's column "Micro Law" appears regularly in IEEE Micro magazine, and he also contributes articles to Computer Design magazine. He serves on the board of the European Intellectual Property Review, submitting articles and information on U.S. intellectual property law issues and is the antitrust and copyright law editor of Computer Law Reporter.

It is the first week of spring in the nation's capital and the kind sunshine has calmed the city's wintry mood. Pennsylvania Avenue's most erudite employees nibble on sandwiches at picnic tables in front of the Treasury Building and the White House front gates are guarded by officers who are politely conversational. It's a lovely day and the nation's most prestigious neighborhood is at peace with itself.

Except within Hotel Washington. There, just a block away from the White House lawn party, a bevy of young lawyers are hovered over their papers, scribbling away in a windowless room, hardly aware that the winter's cold has passed.

A storm of objection prevails here. It is couched in the explanations of a man who could be the only dissenting voice on an issue of law that has enabled a few companies to strengthen their hold on almost the entire riches of one of the decade's most dramatically successful industries.

The man is Richard Stern—partner in the firm of Baker and Hostetler, former chief of the Intellectual Property Division (patents, copyrights, trade secrets, trade marks) of the Department of Justice—and he is telling his audience at the 5th Annual Copyright Law Conference that, contrary to judicial opinions of the last twelve months, copyright law does not support the protection of video games.

He is doing so as the single dissenting voice on a panel formed to discuss the copyrightability of video games, a panel which features Paul Plaia, a partner in the firm that represents Midway Manufac-

turing in its copyright litigation; Jack Simmons, an attorney for the International Trade Commission which has given its official seal of approval to the Midway march on video piracy; and Marybeth Peters, the chief examiner of the Copyright

For the first time, Richard Stern is stepping out of the realm of theory into the ring of practice in the video game law field. He is representing Los Angeles based Video 2000, an arcade which was temporarily restrained by the federal district court there from employing speed up kits on three Midway *Pac-Man* games. The games in question were seized as part of an injunction against some 25 companies last February 16. (*Play Meter*, April 1, p. 11.)

Stern will contend that the employment of speed up kits on legal machines should be legal and will ask for the return of the three games to Video 2000. He will insist that, at any rate, enhancing a video game so that it can produce more income through extended life should certainly not be considered a violation of copyright statutes.

Office which has protected its position on protecting the games under the current law. And in doing so, he is voicing a slim hope—though perhaps unwittingly—for a plethora of manufacturers whose chance for survival in the video market is based on producing less expensive variations on *Pac-Man*, *Donkey Kong*, and other industry hits.

A scenario "in error"

When the 2nd Circuit Court of Appeals affirmed an earlier decision in the case of *Stern v. Kaufman, et al*, the legal precedent

had been established to determine the copyrightability of the "sights and sounds" of video games. In that instance, Stern Electronics won injunctions and impoundment orders against infringers of *Scramble*. (See *Play Meter*, March 15, 1982, p. 11.)

The Stern victory came just two days after a January 18 Midway success with the International Trade Commission. On that day, the ITC served interlocutory orders against eighteen companies—and later added almost forty more firms—to cease and desist importing or selling copies of *Pac-Man*.

The ITC action was argued to be appropriate because most of the infringers were producing in Japan and Taiwan.

Since those decisions, Richard Stern contends, Midway has "run amuck" halting manufacturers, distributors, operators, and locations from dealing with anything that vaguely resembles *Pac-Man*.

The owner of the *Pac-Man* copyright has indeed put a scare into the nation and the wave of legal activity has extended over the entire broad spectrum of the industry. Even the nation's 7-Eleven stores have been called onto the carpet for housing offenders, and as a result, have instituted a policy of eliminating any game which might even have the slightest chance of encroaching on Midway's rights in regard to the yellow gobblers.

The effect within the industry has been dramatic. The small manufacturer, unable to compete with payment for the rights to the hit games, faces extinction. The operator, already faced with the problem of buying games that will profit enough to pay for themselves before they become *passe*, now must pass up the deals he was getting on less expensive machines, out of fear that these games will be declared pirated copies and seized.

The whole scenario, Richard Stern suggests, has unfolded in error. Midway's financial might and an outmoded system of copyright law have combined to foster the mistake.

Initially, it is doubtful that Midway's copyright to *Pac-Man* has provable basis for validity, Stern says, for the origin of the game is still in doubt.

"The copyright form does not require a listing of the elements of origination," he explains. The name of the author on the Midway copyright registration form is

“Each game is...authored by the player. His actions determine the unfolding of the video drama before him.”

simply listed as Namco Limited, the Japanese firm that licensed the game to Midway. But how Namco came to acquire the game is in doubt, according to several industry sources. There is even an indication—through a Japanese journal—that Namco is paying another Japanese firm for the rights to the game.

At any rate, it is always difficult to track the Japanese geniuses who create the games, for there is no copyright law in that country and sources there tell us the rights to some games are exchanged by unrecorded cash payments and enforced by a Japanese edition of the Mafia.

But beyond the problems with registration, does current copyright law protect a video game from being copied, or better yet, enhanced? Stern cites several reasons for saying “No.”

Under current copyright law, video games are registered for protection as literary works. As such there are certain factors that must be investigated in determining violation of copyright.

In a book, or a movie, or a play, reading or performance is always the same. The words of the book never change, the movie never alters its plot. The work is exactly the same each time it is used. It is “fixed.” But with a video game, the work is different every time the player enacts the play mode. Each game is, if you will, authored by the player. His actions determine the unfolding of the video drama before him. And this lack of fixation, under current statute, is a

problem to establishing copyrightability.

Additionally, Stern disagrees that ROMs (read only memories) are protected under the current law.

The ROM is a small electronic circuit consisting of thousands of tiny switches chemically imprinted within a silicon chip. (The ROMs in a video game produce two possible types of audio-visual display. One type is a fixed pattern expressed in the attract mode of the game. The other is the play mode spoken of above.) The pattern of the switch connection within the chip is referred to as object code. The code can be read only in binary terms of 1's and 0's and, therefore, is unintelligible of itself to humans. Therein lies basis for complaint against the games' copyrightability.

“U.S. copyright law does not prohibit others from unloading object code from a ROM, loading the code into another ROM, and using or selling the ROM, even though the object code is a counterpart of a copyrighted source program.”

What all this seems to mean is that current law does not prohibit the purloining of the action of a video game for use in another machine.

“In a nutshell,” offers Stern, “object code is not a copy protectable under the U.S. copyright laws because it is not intelligible to human beings. A copy must be intelligible. Everything hitherto recognized as protectable under the copyright laws has been capable of visual or

auditory perception by a human being. Such object code is intended to be used in the operation of a machine, not to record something intelligible to humans and on command disgorge it for comprehension.”

Beyond the technical rationale for differentiating video games from what is currently copyrightable under the law, Stern points to the fact that neither the idea or concept of the game is copyrightable, nor are the rules of a game.

It is obvious that the concept of *Pac-Man* is not protectable. A plethora of uncontested maze games have followed the little yellow fellows off assembly lines lately.

Rule of doubt

Richard Stern does believe that a video game should be protected from outright theft. But he also believes that the current law is an inappropriate standard on which to make the judgments that the courts have made over the last year.

“If you've seen the popular trash bag commercial where someone keeps stuffing more and more trash into a brand “X” bag until it bursts under the pressure, then you have seen what is happening to the copyright law as it exists.”

Further, the Copyright Office, by accepting copyright registrations of video games gives these pieces a “presumption of validity,” objects Stern. This presumption is accepted by the courts and the rulings



—Photos by Edward Earnshaw

“Midway has been allowed to ‘run amuck’ through the courts, unilaterally victorious on such a doubtful issue...”

they make are based on their assumption that if the game carries a registered trademark, then indeed it is undeniably protected under the law.

But such is not the case, insists Stern: "Anyone who deals with the copyright law often enough understands that there is an unwritten rule of doubt that exists in certain circumstances."

What Stern would like to see happen is that the Copyright Office write out this "rule of doubt" and classify things like video games as such. Then, the courts might not act so unilaterally, at least due to some "presumption of validity."

He would also like to see a commission of industry representatives assess the instances of copying, and enhancing, and make decisions on what extent games infringe on earlier models.

"The remedies are not appropriate," he says. Currently, a judged infringement is enjoined. The game is completely put to rest. But Stern would like to see some middle ground established as a remedy. He would like to see a commission decide on, say, a royalty payment to cover enhancements.

"That would provide the public with better and faster games," he believes.

Fighting the majors

That Midway has been allowed to "run amuck" through the courts, unilaterally victorious on such a doubtful issue bothers Stern. But it has encouraged other copy-

right holders to do the same.

Nintendo of America is currently pursuing these trodden paths through the courts in attacking a wide perspective of *Donkey Kong* infringers. Signatron U.S.A. boss Mike Stone is an angry defendant in the battle.

His *Crazy Kongs*, he feels, are better games than Nintendo's edition and he points to the record in Japan as proof.

"*Crazy Kongs* have outsold *Donkey Kongs* three to one in Japan," he says.

There, Falcon Industries paid nearly \$100,000 to Nintendo to produce *Crazy Kong* boards. But, according to that contract, their sales were to be confined to Japan. Now that Falcon has transgressed that agreement and sold games in the United States, Nintendo is taking action against the offending boards.

What disturbs Stone is that Nintendo has taken no action against Falcon, but has against the operators in the United States who have purchased boards with stickers on them saying they were licensed from Nintendo.

Stone went to Japan and met with the president of Falcon. "He assured me that Nintendo had not even written him a letter telling him to stop shipping the boards to the United States. Apparently, Nintendo doesn't want to impose upon their relationship with Falcon; they would rather go after the fifth party down the line, who the boards have been sold to."

As a result, Stone is determined to carry

his case further than others have. He is determined to fight the majors' millions, and to do so he is hoping that he can devise a legal fund that will attract contributions from others around the country who feel as he does.

"There will be a jury trial in this case that Nintendo has brought against me, and it will be the first one," he says. At that trial, maybe, just maybe, Richard Stern will make an appearance.

Test of strength

Assuredly, the issue at hand is worthy of continued debate. Although Paul Plaia certainly believes the courts were right in determining that Midway was due protection under the law in regard to the ROMs of video games, and ITC's Jack Simmons believes that the Commission appropriately handled Midway's pleas to establish jurisdiction over foreign manufacturers, both of these rulings represent new territory covered by existing copyright law. And both are challenged by Stern's queries regarding the parameters of the current law.

But whether or not the issue will be sorely tested is doubtful. It is simply not within the power of any current defendant to match the financial strength of the major manufacturers who are bringing actions against the infringers. In most cases, Stern foresees, infringers will continue to back off before they are absorbed by court expenses. •

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Video Game Litigation: Copyright Infringement Issues

by Elliott N. Kramsky

'Two recent decisions involving Atari include instructive analyses of the issue of infringement of the audiovisual display and represent a "second wave" in video game litigation.'

'Clearly, present-day technology allows the copying of a ROM without the necessity for production of a listing.'

As the previous discussion in this series of copyrightability indicates, the issues of scope of copyright protection and copyrightability tend to merge and depend for their resolution upon distinction of the ideas being acted out on the screen of the CRT from the expression of that idea. Generally, as shown above, the scope of copyright protection for the "movie" shown on the "game board" should depend upon the arbitrary features of the characters, etc., to avoid appropriation of *scenes a faire*. Of course, the arbitrary element of any game follows from the breadth of the generic statement of the game. The determination of the genus of the game should be made in light of, among other things, the plot and type of the game. While the development of software for a new game may require extensive effort, video game strategies fall within a number of recognized "types." Included among these is the "maze" theme of *Pac-Man*.

Two recent decisions involving Atari include instructive analyses of the issue of infringement of the audiovisual display and represent a "second wave" in video game litigation. These cases do not argue the copyrightability of the various modes; rather, they assume the existence of exclusive rights and attempt to analyze the breadth of the monopoly appurtenant thereto.

In *Atari, Inc. v. Amusement World, et al*, Civil No. Y-81-803 (D.Md., November 27, 1981), plaintiff sought to enjoin the alleged infringement of its *Asteroids* games by defendants' *Meteors*. The Court noted twenty-two (22) similarities between the games and nine (9) differences. Among the differences were the facts that one game was in black and white, the other in color; one game's symbols had a three-dimensional effect; the rocks in *Meteors* "tumbled;" backgrounds, speed of spaceship and of firing, pace of game, and other seemingly minor variations were noted. In rejecting the plaintiff's motion, the Court stated:

"This Court has held that plaintiff is entitled to a copyright on *Asteroids*,

because the idea of a video game in which the player shoots his way through a barrage of space rocks is an idea that is sufficiently general so as to permit more than one form of expression. However, under the doctrine set forth above, the Court must be careful not to interpret the plaintiff's copyright as granting plaintiff a monopoly over those forms of expression that are inextricably associated with the idea of such a video game. Therefore, it is not enough to observe that there are a great number of similarities in expressing between the two games. *It is necessary to determine whether the similar forms are forms of expression that simply cannot be avoided in any version of the basic idea of a video game involving space rocks.*"

(emphasis added)

Atari v. Amusement World, Slip Opinion at page 13.

The Court found that "most" of the similarities between the games were "inevitable." Yet,

"Given the unavoidable similarities in expression, the ordinary player would regard the aesthetic appeal of these two games as quite different... to put it bluntly, defendants took plaintiff's idea. However, the copyright laws do not prohibit this."

Atari v. Amusement World, Slip Opinion at page 15.

Plaintiffs Atari and Midway were unsuccessful in establishing a likelihood of success at the District Court level on the infringement issue in *Atari et al v. North American Phillips Consumer Electronics Corp. et al*, 81 C 6434 (N.D. Ill, December 4, 1981). The suit alleged infringement of *Pac-Man* copyrights by defendants' "K.C. Munchkin" home video game. Although it was established that the creator of defendants' game had seen and played *Pac-Man* prior to development of *K.C. Munchkin* and evidence showed that

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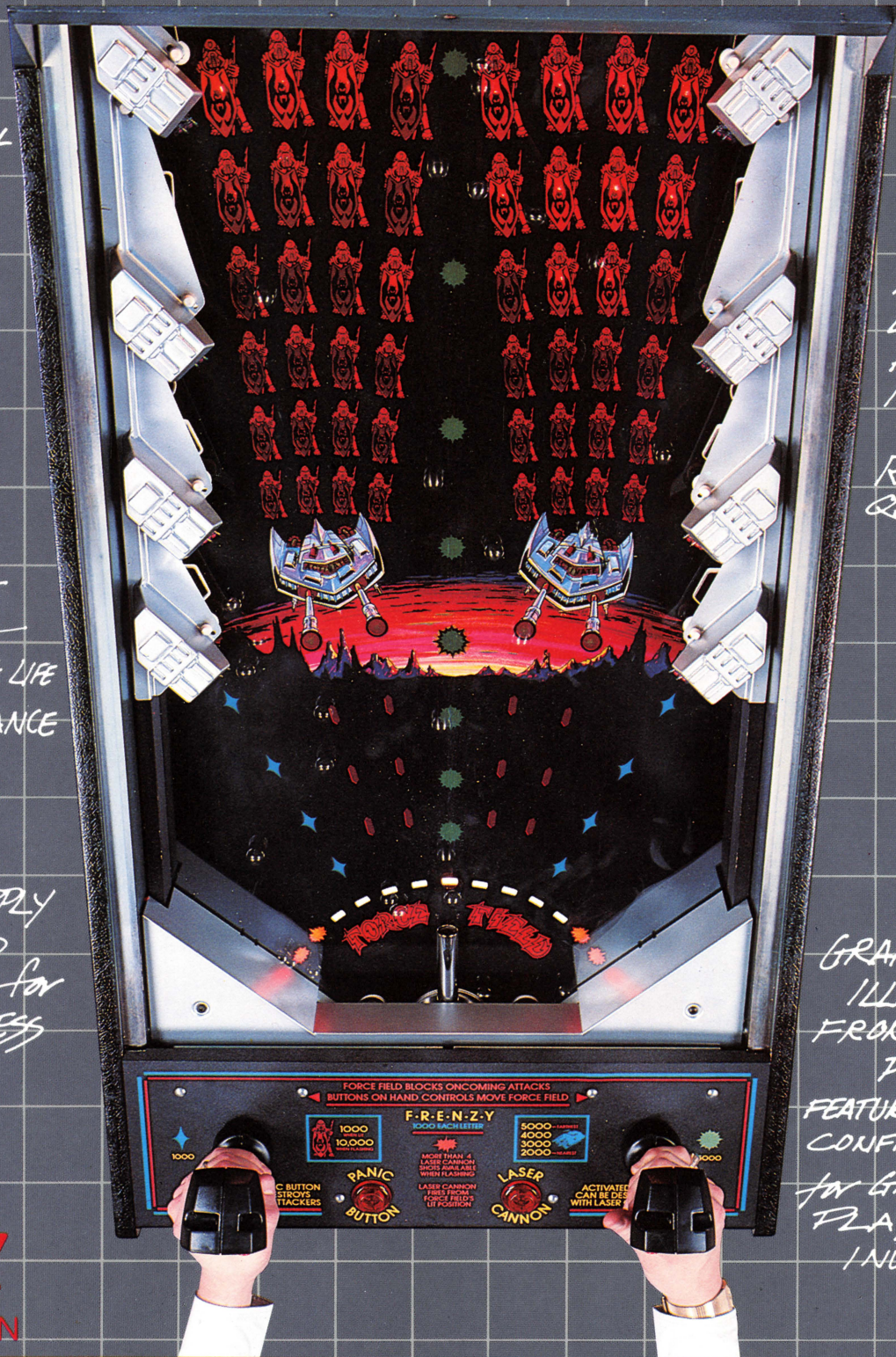
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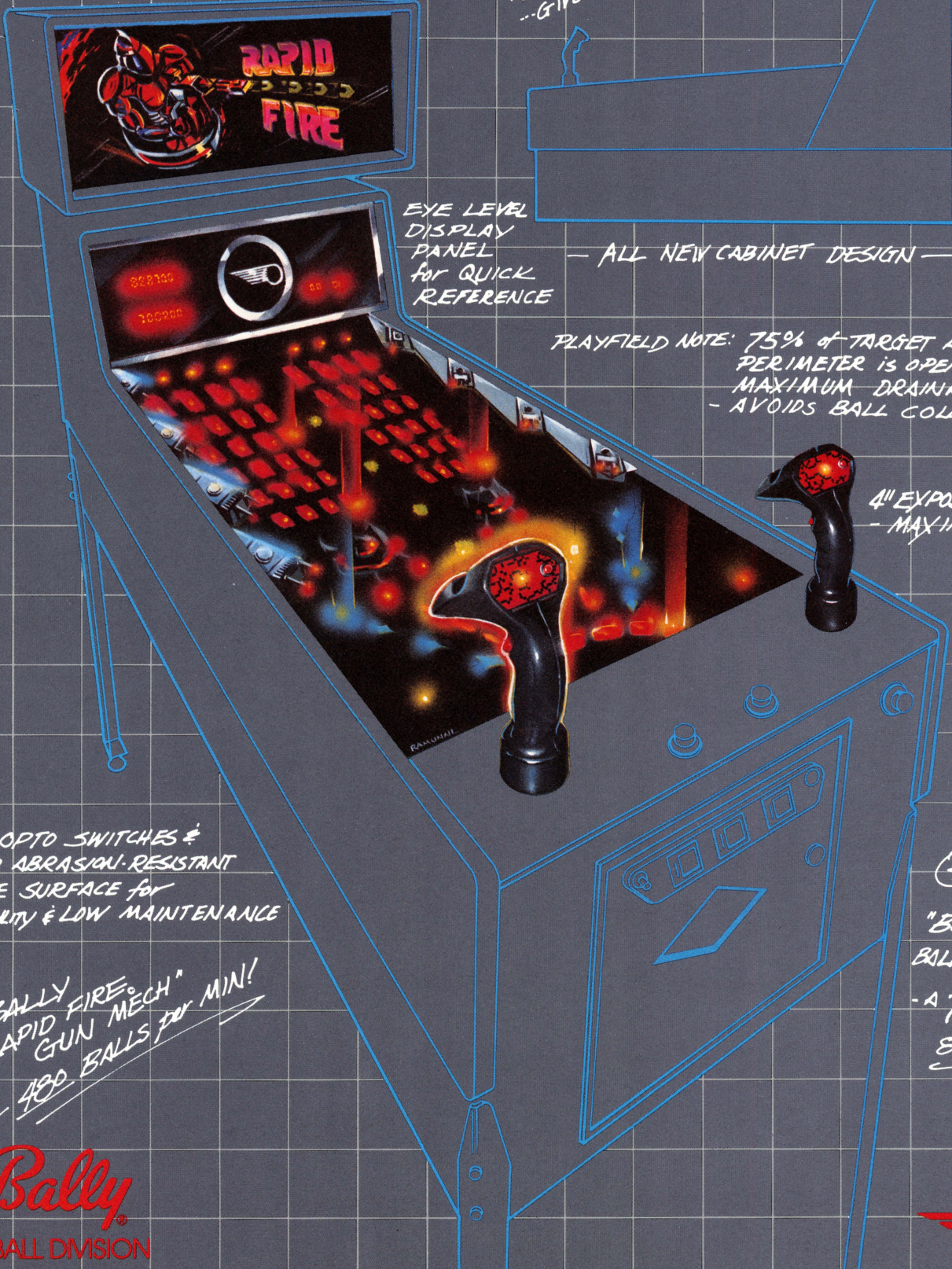


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Munchkin was recognized as a *Pac-Man* type game, the lower court cited nine areas of difference including shape of maze, variability of *Munchkin* mazes, appearance, shape and relative "spookiness" of characters, movement of center of maze, number, shape, spacing and movement of dots, and audio tone sequence.

It not only denied the motion at hand but indicated that it expected defendants to prevail upon the infringement issue at trial.

"...in order to prevail...plaintiffs must prove that defendants performed and distributed games copied from...*Pac-Man*. In this court's judgment, plaintiffs, on a trial of the merits, will not be able to make this proof."

Atari et al v. North American Phillips et al, Slip Opinion at pages 18, 19.

This decision has recently been overturned by the Seventh Circuit. *Atari et al v. North American Phillips*, 81-2920 (Cir. 7, March 2, 1982). The appeals court found that the lower court had abused its discretion by failing to make findings on the combination of issues comprising the Circuit's test for a preliminary injunction. In addition, the Court, noting that infringement is based upon "ocular comparison" and is devoid of issues of material credibility, proceeded to pass upon infringement *de novo*.

The Court defined the *idea* of the copyrighted game thus:

"*Pac-Man* is a maze-chase game in which player scores points by guiding a central figure through various passageways of a maze and at the same time avoiding collision with certain opponents or pursuit figures which move independently about the maze. Under certain conditions, the central figure may temporarily become empowered to chase and overtake the opponents, thereby scoring bonus points. The audio component and the concrete details of the visual presentation constitute the copyrightable expression of that game 'idea.'"

Atari et al v. North American Phillips, Slip Opinion at pages 20, 21.

Having made the foregoing analysis of *Pac-Man*, the Court then viewed as *scenes a faire* the maze, scoring table, "wrap around" tunnel exits and the use of dots to gauge the game's progress. Thus, similarities and dissimilarities between *Pac-Man* and *Munchkin* in these areas are irrelevant to the infringement issue.

The Seventh Circuit found that, in the context of its definition of the game, "The expression of the central figure as a 'gobbler' and the pursuit figures as 'ghost monsters' distinguishes *Pac-Man* from

conceptually similar video games." *Atari et al v. North American Phillips*, slip opinion at page 20 (emphasis added).

In applying its analysis to the accused game, the Court appeared to confer a relatively broad scope of protection upon the *Pac-Man* characters. The district court had found that:

"The characters in *K.C. Munchkin* are different from those in *Pac-Man*. In *K.C. Munchkin*, the central character, the munchkin, appears as a blue figure with horns, normally with a smile, but when he is attacked by a monster, his smile turns to a frown; and then he evaporates upwardly from the screen. The character, or the appearance of the central figure, is that he initially faces the viewer rather than showing a profile. As he moves along the maze he shows a profile, and when he stops, he turns around to face the viewer with another smile. Thus the central character is made to have a personality which the central character in *Pac-Man* does not have. *K.C. Munchkin* has munchers which are much 'spookier' than the goblins in *Pac-Man*. Their legs are longer and move more dramatically; their eyes are vacant, all of these features being absent in *Pac-Man*. The munchers are red, green and yellow."

Atari et al v. North American Phillips, 81 C 6434, Slip Opinion at pages 7, 8.

As opposed to the District Court, the Seventh Circuit found relative sizes and shapes of the bodies, the V-shaped mouths, gobbling, and disappearing of the central characters to be "blatantly similar features." Additionally, the games' ghost characters were found to be of virtually identical size, shape, and manner of movement. In evaluating similarities, the Court referred to the "setting" in which the characters are observed:

"Video games, unlike an artist's painting or even other audiovisual works, appeal to an audience that is fairly indiscriminating insofar as their concern about more subtle differences in artistic expression. The main attraction of a game such as *Pac-Man* lies in the stimulation provided by the intensity of the competition. A person who is entranced by the play of the game, 'would be disposed to overlook' many of the minor differences in detail and 'regard their aesthetic appeal as the same.'"

Atari et al v. North American Phillips, 81-2920, Slip Opinion at page 24.

A final issue relating to copyright infringement in video game cases relates to



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the software which animates the game. As mentioned earlier, little question exists as to the copyrightability of computer programs under the new copyright act. However, a split currently exists between district courts of the Seventh and Ninth Federal Circuits regarding whether or not a ROM which has been programmed without permission, in accordance with copyrighted software constitutes an infringement of the copyright.

In the Seventh Circuit, the case of *Data Cash Systems, Inc. v. JS&A Group, Inc.* 408 F.Supp. 1063, 203 U.S.P.Q. 735 (N.D. Ill, 1979) (affirmed on other grounds in 628 F.2d 1038 (Cir 7 1980)) says "no." In that case, the infringement issue was decided under pre-Copyright Act of 1976 law and the Court relied heavily upon the rationale of *White-Smith Music Publishing Co. v. Apollo Co.*, 209 U.S. 1 (1908), characterizing the computer program, as stored in the ROM, as a part of a mechanical tool or machine rather than a copy of the source program.

In denying a defendant's motion to dismiss in *Tandy Corporation v. Personal Micro Computers, Inc. et al*, C-81-0744 (N.D. Cal, August 31, 1981) upon being faced with the identical issue the Court stated that it was "...not compelled to follow the reasoning of the district court in Illinois, now are we convinced of the merits of the basis of that decision." *Tandy Corporation v. Personal Micro Computers*,

Slip opinion, page 7.

Although the *Tandy* decision was based upon the present statute while *Data Cash* was not, it is questionable whether a different decision would have been compelled in *Data Cash* by the present Act.

'The copyright law will serve public policy insofar as the broadest scope of protection is afforded those games which exhibit the greatest amount of creativity.'

Further, the Court in *Tandy* relied heavily upon a finding that the copying of the program had involved, as an intermediate step, the production of a listing of the copyrighted program. Clearly, present-day technology allows the copying of a ROM without the necessity for production of a listing. Thus, the teachings of *Data Cash* should not be dismissed lightly.

Conclusion

Copyright appears to provide the body of law most suited to the peculiar needs of the industry in the United States. Such protection is not available for video games in Japan; yet a considerable number of the

most popular games have originated in that country. Obviously, this leaves much room for analysis of different societies' views and assumptions with regard to the role of copyright in stimulating creativity. However, the protectibility of original games within this country appears to be beyond question.

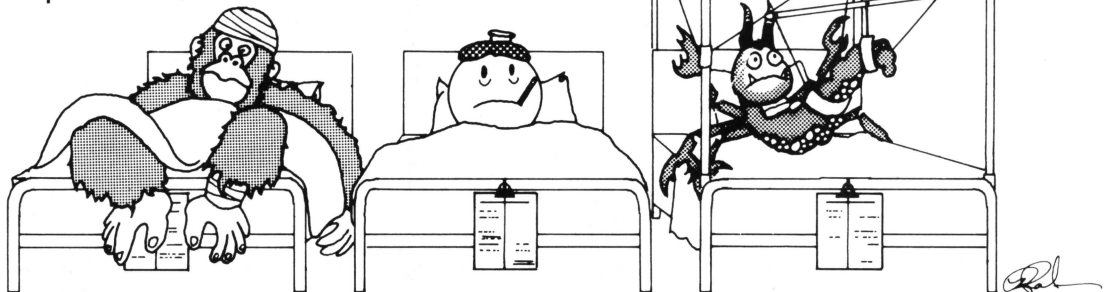
The most fertile battleground for defendants appears to lie in attempting to narrow the scope of protection of proprietary games when litigated to prevent the assertion of overreaching claims based upon relatively conclusive registrations in the areas of games' software and/or display. Plaintiffs' positions seem to be similarly well-defined and the copyright law will serve public policy insofar as the broadest scope of protection is afforded those games which exhibit the greatest amount of creativity. •

Elliott N. Kramsky is an attorney with the Los Angeles law firm of Nilsson, Robbins, Dalgarn, Berliner, Carson and Wurst. Kramsky, whose practice is concentrated in the areas of patent, trademark, copyright, and unfair competition law, received his legal education at Boston University School of Law (J.D. 1973). He also holds degrees in engineering and in economics and has held professional positions in these fields. Client counseling and litigation concerning video games forms a substantial portion of his practice.

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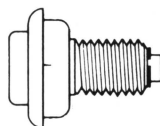
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The Distributor: Order taker or essential middleman

By Valerie Cognevich

The product chain in the coin-op amusement industry begins at the manufacturer, goes through the distributor, to the operator, and finally to the location. Many an operator has, at one time or another, asked the question, "Why a distributor?"

Jerry Marcus, of Empire Distributing Co. (one of the largest distributorships in the country), met with operators at the AOE in Chicago this past March and tried to answer that question in a seminar titled "Why a Distributor?"

First, it would be humanly impossible for the manufacturers to deal directly with each operator in the country. Manufacturers appoint distributors to represent their products and, in effect, represent the factory itself—much the same way auto makers appoint dealers to sell the cars. Consumers don't buy automobiles directly from the auto factory. In the same respect, operators don't buy games directly from the games' manufacturers.

Distributors, Marcus says, are in the business of selling games. They have showrooms to give operators a chance to view new equipment hitting the marketplace. Of course, he goes on, with the "Hot Game" syndrome (only wanting the latest popular game and not willing to settle for anything else), many times there are more sales than games available. Although many manufacturers accuse distributors of being merely order takers, the function of a distributor goes much deeper than just taking orders. Marcus points out that salesmen can't sell games that operators just don't want—no matter how well salesmen sell. The day of the filler piece is gone. The Hot Game Syndrome is here to stay, he says.

Distributors pretest much of the new equipment. They will, in turn, try, to preselect from the manufacturers games which will hopefully become successes. A distributor must make a commitment, Marcus continues, to the manufacturer so



Empire's Jerry Marcus

that he can plan a production run. If there is no commitment made, and the game coming out of the factory is, say, *Pac-Man*, then the distributor—and in turn the operator—will more than likely have a long wait for that game since the distributors, who have made a commitment, will be first in line for the games. By the same token, if the game turns out to be a lemon, the distributor is still committed to the manufacturer. So, there is a tremendous burden on the distributors' shoulders just to have the games available that are in demand and *not* have the ones that will never be in demand.

Distributors have close-out sales. Though Marcus views this as a mixed blessing, it can be a plus for the operators. There can be some very good deals made on some of the games through the distributors' close-out sales.

Marcus also expounds on the availability of parts, service, and warranties through the distributor. A factory will usually have an X -amount of days warranty on the games it puts out.

However, that warranty applies from the day the game is shipped from the factory. By the time it leaves the manufacturer, gets delivered to the distributor, and finally is bought by the operator, the factory warranty may already be expired although the game may have never even seen its first quarter. Marcus explains that then the distributors will apply their own warranties using their own service people for the operators.

Distributors carry more parts in stock than most of the factories. Some distributors have as many as twenty lines of parts. The lowest turnover for a distributor is in his parts inventory, Marcus explains. But distributors still keep a large inventory to make the parts readily available for most games, and they are as close as the distributors' showroom for operators.

Many distributors, Marcus goes on, run service schools and send out bulletins to the operators. This can prevent downtime, and bulletins provide advice about making the games play better, and have useful tips on the idiosyncrasies of certain games.

Distributors carry their own staff of specially trained service people to meet the needs of today's problems, Marcus says. This specialized service is readily available from local distributors.

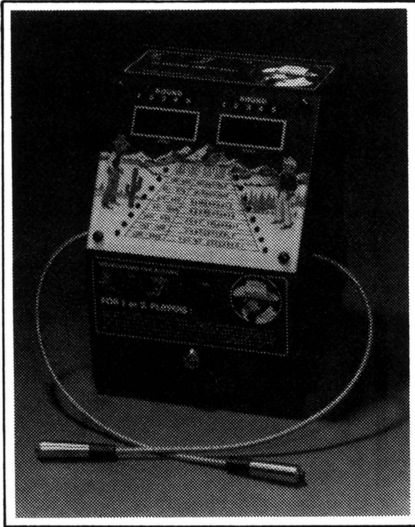
Distributors, Marcus points out, can also help with financing. They can help the operator with financing or can also arrange for financing through a bank. This has the advantage of helping the operator establish his own credit with the bank, making it possible for the operator to arrange his own financing at a later date.

Distributors are available for advice too. They can be helpful, besides helping with games selection. They can many times advise on game room selection and design. The distributors can also help secure locations and help sell or buy a route, Marcus says. Distributors can also help with location contracts.

'Manufacturers...represent the factory itself—much the same way auto makers appoint dealers to sell the cars.'

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Besides all of the above, Marcus also says that distributors can also be a sounding board for operators. They can listen to the gripes the operators have, and, in turn, can relay these gripes to the factory representative. Or the distributor can arrange for the operator to talk with the factory representative when he comes to the distributorship.

Marcus also stresses that distributors can be an effective public relations firm. One distributor invites church groups to his showroom and familiarizes them with the games and gives the folks from the church the chance to play the games and see what all the kids are talking about. This helps the industry as a whole, Marcus continues. Just letting the community see that everyone in the industry does not wear pinstriped suits, white ties, carry a .45 magnum, or is out to steal kids' lunch money gives industry the good image it deserves.

Marcus then points out that distributors

“concerned parent” fights against video games with a ferocity unimaginable. She advocates cities outlawing kids under 18 from even playing the games and wants to ban the games themselves. There may be more of these ludicrous laws if there were not someone out there saying enough is enough and doing something about it.

Marcus says that distributors are spending more and more of their time on legislative matters and are trying to keep ahead of the laws aimed against the industry.

Associations can also make stands on certain issues of supreme importance to the whole industry. One example Marcus gives is on “gray area” games. He states that the Illinois association has taken a public stand against the gray area equipment infiltrating into the industry.

Contrary to what some operators believe, Marcus says, distributors discourage location selling. However, sometimes it happens. A distributor



World Wide's Harold Schwartz

are probably more aware of local problems facing the industry than operators. When local problems plague a community, the whole industry suffers. Marcus gives Chicago as an example. An ordinance was introduced, and if it had passed, 53 percent of the video business would have been lost. Local distributors attended the meetings and because of these efforts the ordinance was not passed.

Marcus strongly recommends belonging to a state association and says that the forms can be obtained from a local distributor. By supporting the local associations, Marcus continues, war chests can be set up to fight battles against legislation detrimental to the industry. Many of the laws aimed against the industry are absolutely ridiculous, but if no one fights them, legislation will go into effect that can put the whole industry out of business, Marcus says.

The industry has had a taste of bad publicity lately—Ronnie Lamm, a

cannot be in a position to be accused of restraint of trade and refusing to sell. Rip off equipment is something Marcus says major distributors will not deal with. Marcus also believes that the convertible games concepts entering the marketplace may be an advantage to the arcades but may not be strict enough.

Another distributor in the audience, Harold Schwartz of World Wide Distributing, Inc., stressed the importance of operators in this industry. “Without operators there would be no industry,” he said.

As mentioned before, the distributors are representing manufacturers by selling their products. All manufacturers paneling the “Early Bird” session at the AOE Show agreed that they want to hear from operators if they are experiencing problems with a distributor. The manufacturers appoint distributors and are interested and concerned about how the operators are treated. ●

A Captive Audience

Electronic games continue to exert their mystique

by Roger C. Sharpe

I don't know about you, but I've become just about electronic-game-hyped to death. And it's not sour grapes as some might think. I feel that much of the attention is super and much deserved. However, there's a limit even for me and everywhere I turn there's still more that's ready to hit me over the head. You have to understand that in my capacity at *GQ* as managing editor, I wind up seeing a heckuva lot of publications—newspapers and magazines.

And everyone is doing something with electronic games, whether they be of the coin-op variety or hand-held games or even computer game cartridges. There are stories everywhere and it's gotten a bit crazy, especially when you see something like *Oui* magazine devoting almost an entire issue to *Pac-Man*, complete with nudies to grace the visuals.

Now, lest anyone gets the wrong idea about my comments and reactions, realize that I have always been and always probably will be an ardent game player. Besides the eight pinball machines in the apartment, I also have an Atari game computer, Bally arcade model, Mattel's Intellivision, and Odyssey from Magnavox. If that weren't enough, I also have a full complement of hand-helds and various other standards that probably fall into the classic category of board games. So playing

around has been a way of life, and I indulge myself whenever the feeling calls.

But the point becomes one of overkill. Right now the world is being inundated by news on all fronts about electronic games. And not only is there something to talk about regarding the various games, but also the companies involved in all the business. Financial analyst Dan Dorfman can report on projections for Bally and the rest of the video game explosion entrees and there's the fear, in terms of Wall Street, that the action may be slackening off. Are they going to be right or wrong? No one can tell, although the bonanza can't last forever, but where the lid is, or the plateau that is yet to be reached, is anyone's guess.

Then you see the reports of Coleco becoming far more aggressive with their upcoming home computer game system and licensing agreements with almost everyone of consequence such as Sega/Gremlin and a few others. Or how about Bally and CBS with their tie-in to Ideal Toys. The surge continues on all fronts. People are being swamped with games, games, and more games in more forms than they'd probably care to know about. The blitz for *Pac-Man* notwithstanding, things have reached a fever pitch.

Just look at the number of books already on the stands and those waiting in the wings to hit the scene. There are no less than thirty titles covering all methods of

madness on how to beat anything and everything in sight, as well as roundups of home and arcade models and other literature planned for the budding hobbyist ready to make his own versions for fun and illegal profit.

The new counter culture no longer revolves around a Vietnam war or dropping out from society, which were the staples of the Sixties, but rather on parlaying some BASIC knowledge on floppy discs and other peripherals that make up the growing home computer phenomenon where kids are no longer trading baseball cards but programs they've broken on a rainy afternoon. It is frightening to think that the next generation will be on a first name basis not with rock musicians or professional athletes but microprocessors, bytes, K, and the vernacular of an entirely new technology. If New Math, that failed experiment of a latter age, brought palpitations to the hearts of parents, wait until the dawn of solid state arrives and becomes the "in" thing, if it hasn't already.

The thing that distresses me above all else is that the games have become such a life and death issue. Think about the impact that there are books actually giving tips on how to beat particular games. Who cares? Only millions of people. The fine line has gone beyond enjoyment or even amusement. It's now a matter of winning



although no one can ever win in the purest sense of the word.

I have yet to hear of anyone who has beaten a machine, whether it be pin, video, or even a shuffle alley. The impossible dream comes to life in the form of a video game. Strange isn't it? And then you look at the television news specials and interview shows with their incisive reports on the proliferation of games, and one gets the sense that parents have lost total control over the actions of their children. Why else the unbridled concern? Lunch money, bad company, hanging out, drugs—all the same arguments used for so long and now resurfacing again as the ammunition, although it holds the mirror more for the inability of adults to cope and better understand today's youth. A Supreme Court case all were looking to for salvation, which only stagnates and is then thrown back in the laps of those who are really ultimately responsible. And there are no real solutions to the problems.

It's staggering really when you take the time and effort to step back and observe the goings-on. It's like the circus come to town and all the performers are in the center ring vying for attention and adulation, when the whole issue needn't be that big to begin with. The fact remains that with all the brouhaha there is still a real world out there, which many seem to have ignored for the sake of what they appear to think is the greater picture.

But these times we live in are alarming if

even you want to stick your head in the sand of revel in the glories of video. There's a war going on (at least at this writing in the beginning of May), the depression/recession has become an almost accepted way of life with millions out of work and the economy suffering, prices of goods and services continuing to escalate along with inflation, a best seller revolves around nuclear holocaust which makes me fear for my two young sons, and the list goes on. Yet, video takes the spotlight time and time again as the end-all, be-all, when, in fact, it's just a game—a novel form of amusement—and nothing more.

What has happened to priorities? It's funny, when I first sat down to write this column I was going to focus my attention on the legal problems a friend was having in getting a zoning variance to open an arcade in the greater New York city area (and I still might do this in a future issue), but somehow it all seemed so unimportant compared to state of the world and the current perspective of electronic games. There seemed to be a crying need for at least someone to sound off and hopefully offer a reasonable platform on which to view all the events.

But over the years I've also become something of a realistic pessimist when it comes to the greater picture. And I realize that what I have been able to offer is only words, sometimes, admittedly, a scream for action or attention, when I feel strongly about certain issues or circumstances.

I have been even called outspoken for some of the stances I have taken, when I would have chosen to be considered passionate about righting wrongs or exposing injustices. However, I am only in the position to prey on your consciences to do the honorable thing in any given circumstance, but even time has had an effect on the urgency I often feel about specific activities.

It is, after all, your livelihoods, not mine. I feel myself involved, but it is, unfortunately, as an outsider, not as someone who must face each day within the confines of the industry. I am just someone who happened upon an exciting business before the sky came falling and parting around.

You're on the battlelines and in the trenches having to cope with the surrounding turmoil on a day-to-day situation. I am still on the sidelines, though I harbor dreams and hopes for what could be a better possibility and potential for the future.

In closing, for now, just believe that you have the power to change those things you would like to have different and that the world of tomorrow is limitless in scope if you believe that it can be.

Anything is possible not for the idle dreamers or self-centered egoists, but rather for those with the compassion to open all doors and test all waters in an effort to accomplish the unattainable and leave a lasting legacy for those who will follow in your footsteps.

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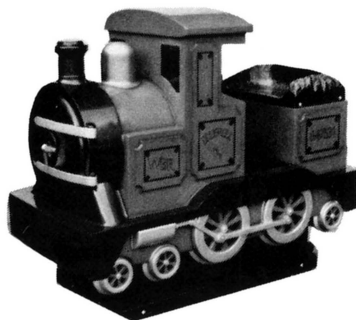
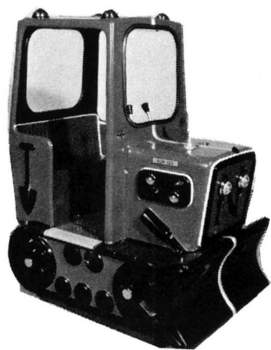
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PR PROBLEMS/ PR SOLUTIONS

By
Mike
Bucki

"Atari's Community Awareness Program lies waiting.."

The first 90 seconds grab the viewers as compellingly as any of the best segments of CBS's highly rated *60 Minutes*. Upbeat music begins as the title dissolves into the first series of close-ups. Video game players, young and young at heart, are shown experiencing the delightful anguish of trying to conquer several video challenges.

Suddenly the first set of pro and con comments appear. A middle-aged woman, a grandmotherly type, says, "I don't think they're good for children." On the heels of her doubt comes a cute teenage girl who rebuts with: "I think they're pretty neat. That's what I do in my spare time." Then a middle-aged man blurts the objective: "I don't like the idea of them standing there pumping money into them."

The television collage continues with video game action and players' reactions providing effective and brief visual bridges between sets of pro and con comments. Someone, apparently an industry spokesman (and identified as such moments later), raises the question: "The problem is, and maybe societies haven't dealt with it yet, what do you do with youth when they congregate?"

A tall, handsome, smartly dressed narrator appears on the screen. Standing in front of a pleasant, tree-shaded shopping mall, he tells us, the viewers, that coin videos are turning up all over the country... "in supermarkets, barber shops, doctors offices, and bookstores...even in the jury room at the municipal courthouse of San Jose, California."

The narrator steps meaningfully toward the camera, a television technique that places the actor/reporter comfortably in your living room. "Well naturally we have some questions," he says, using *we* to indicate to *you*, the viewer, that he's on your side, he's one of you.

That impression is quickly reinforced. "Where do these games come from?" he asks, and quickly adds: "What effect do they have on the players? And what happens when they appear in our communities?"

He's got you. Those are questions you, America, have been asking. When the narrator poses them with the same tone of concern you've expressed, you're ready for some answers and you know he's about to provide them. If his answers seem reasonable, you'll probably agree with them.

So begins "Video Games: A Public Perspective," a 17-minute video tape that Atari introduced and disseminated to its distributors in late March of this year. The tape and several pages of backup material are part of CAP, the Community Awareness Program, which Atari says is "designed to combat the ever-increasing restrictive video game legislation cropping up across

'The tape grabs the viewers' attention with "real people," ordinary citizens expressing their fears about video games, and others—non-industry people—voicing accolades for video.'

the nation." Atari spokesperson Margaret Lasecke adds that CAP is only "the first in a series of (PR) tools we'll provide Atari distributors."

Is it an effective tool? If so, will it be used by operators and distributors? The signs are not good for the latter, so let's take the first question.

The tape sparkles with professional quality. Within 17 minutes, a time length that fits neatly into presentations to Rotary Clubs, city councils, and PTA's, "Video Games: A Public Perspective" presents the positive side of video games in a network quality documentary format. Within the supportive materials, Atari also

provides step by step guidelines on how to introduce yourself and the tape to a public audience.

The tape grabs the viewers' attention with "real people," ordinary citizens expressing their fears about video games, and others—non-industry people—voicing accolades for video. A beat cop in Chicago tells why he testified against restrictive legislation. Gangs and gang wars had been a problem in his neighborhood until the appearance of an arcade. The games keep the kids off the street and out of trouble, he says. The owner of a pizza parlor in Westchester County tells the audience that the games provide him revenue for community involvement, such as sponsorship of four or five softball teams. A research professor from the University of Illinois at Champagne-Urbana comments on the transfer of game skills, which he feels will help young and old adjust to the computer age we're now entering. A Long Island school psychologist feels that the games can be a tool that enhances communication between parents and their children, and he's written a guide to show parents how. And the list goes on as the tape progresses.

Yes, the negative fears of some parents are expressed and discussed, and yes, Don Osborne, Atari vice president, is seen at several points, offering calm, reasoned arguments in rebuttal. But most often the "real people" steal the show. While playing the games and talking positively about them, they are the industry's best ammunition. And they are far more effective than any impassioned speech, no matter how well researched and delivered, could be.

In short, the CAP tape can be an extremely effective public relations tool—if it's used.

"They (operators) haven't got time to get involved in any public relations," said Morris Piha, of Greater Southern in Atlanta, when I called to ask him about CAP. His comment looks coldly negative in print, much more negative than the tone in which it was voiced. Piha says that he has shown the tape to several operators,

when they have time, and he intends to continue, but only one so far has asked to make use of it. "Most don't have the facilities to use it," he said, adding, "They (Atari) are gonna have to get us some more tapes."

But Bill Curley, general manager of Phillip Moss & Co., Des Moines, Iowa, is making copies of the Atari tape for operators in his area who request it. So is Rubin Franco of Montgomery, Alabama. All, however, echo Paul Pettigrew, Rowe International in Phoenix, who admits, "We really haven't made use of it like we should." Pettigrew says he encourages operators to borrow the tape,—"I'll even loan them my tape player and screen"—but he adds, "we haven't had any calls lately."

So Piha's suggestion that Atari provide additional copies of the tape seems a bit much. Having been in the television news business, I can assure you that in producing the original tape Atari has already spent a bundle. Sending a professional video crew with a writer, producer, narrator, and support personnel to various locations around the country, finding people, pro and con, who were willing to appear on camera—that, and more, was not a penny ante undertaking. Making additional copies is a nominal expense by comparison, an expense that should be incurred by the distributors and operators.

On the other hand, Atari's expectations of distributors may be a bit high. In CAP's supporting materials, Atari suggests that each distributor appoint, within his own organization, a public relations coordinator who should:

1. Coordinate all requests from operators and community members regarding the usage of the community awareness video tape.
2. Maintain a schedule for the video tape to ensure frequent and effective usage.
3. Monitor the effect of the Community Awareness materials by insisting that the feedback sheet be completed and returned to Atari.
4. Respond to all media calls.

Depending on the size of the state and the number of legislative problems that occur, the tasks outlined by Atari could take up a lot of time, ten to thirty hours a week is my guess. I doubt that many distributors have that much time to devote to the cause, as worthwhile and necessary as it is. But isn't it time for someone to make time for positive PR?

Some are. Don Hankinson, president of the Georgia Amusement & Music Operators Association, and Les Schneider, the association's legal counsel, have successfully beaten back or softened several restrictive legislative efforts that arose in their state during the past two years. But they, and others like them in other states,

can't carry the ball forever.

Operators have been complaining for some time that they need help. Well now, with Atari's CAP, with the Community Relations Manual being produced by ADMA, AMOA, and the AVMDA, and with the work of aggressive state associations like the GAMOA, a team effort appears to be building and the tools are now available. So what say you, operators?

To be fair, I know that many of you have been and still are involved in your communities. Keep up the good work and share your successes with me. Call me, evenings, at 404/451-9548. I'll pass along your experiences to other operators, including the "how to" in this column. I'll

be discussing some nitty gritty practical PR matters like how and when to write a press release, and who to send it to. What facts should you have at your fingertips when answering calls from the media? What are some of the pitfalls to avoid when running a Game-A-Thon for a local charity? These and other matters I'll throw out for your perusal, but I need your help, and please don't assume that I've already heard about this or that promotion or idea. Call anyway.

In the next edition of this column, I'll be discussing, step by step, how to run a charity Game-A-Thon. Thanks to Mike Myahl, proprietor of Anniston, Alabama's "Magic Mountain," who believes in sharing.

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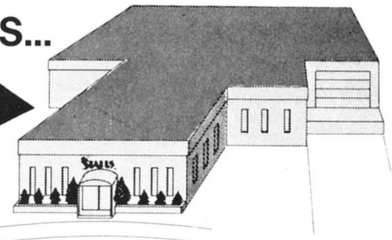
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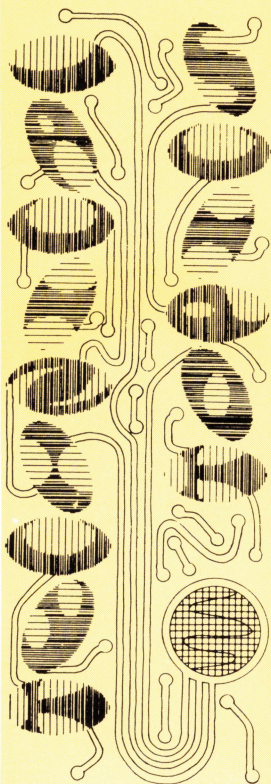


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I.C. LOGIC DESIGN COURSE

Lesson Nine: JK Flip-Flops

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.

Lesson Nine, JK Flip-Flop. The most popular of the memory elements is the JK flip-flop. Many of the shortcomings of the other types of memory elements are avoided by using this type of flip-flop. The logic circuit designer will probably use the JK more than any other type of memory element.

JK MASTER-SLAVE FLIP-FLOP:

Perhaps the most versatile master-slave memory is the JK flip-flop. The JK is identical to the R/S master-slave except that the \bar{Q} output is connected to a third input on gate seven and the Q output to a third input on gate eight (fig. 9-1).

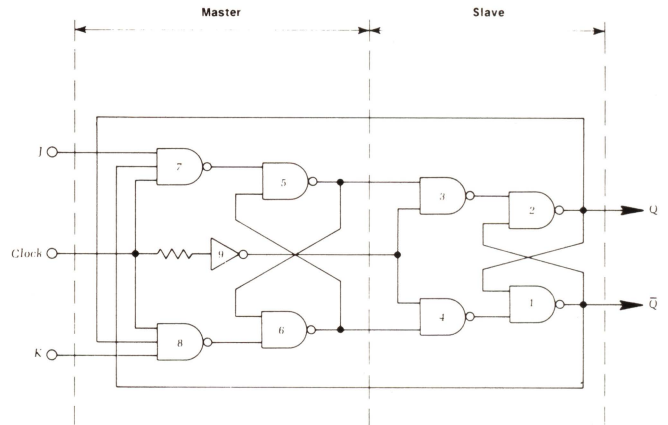


Fig. 9-1. The basic configuration of a JK flip-flop. The outputs are reconnected to the inputs.

Let us assume that both the J and the K inputs are at logic 1 and the flip-flop is in the **one** state ($Q = 1, \bar{Q} = 0$). When the leading edge of the clock pulse arrives, the output of gate seven will present a logic 1 output to gate five. Gate eight will present a logic zero output to gate six. Therefore, the master flip-flop goes into the zero state while the slave is isolated in the one state. The trailing edge of the clock pulse isolates the master from its inputs and permits the slave to go to the **zero** state.

Input at t_n		Output at t_{n+1}	
J	K	Q	\bar{Q}
0	0	Q at t_n	\bar{Q} at t_n
0	1	0	1
1	0	1	0
1	1	\bar{Q} at t_n	Q at t_n

Table 9-1. The truth table for a JK flip-flop. The student should notice that outputs are defined for every input.

In general, the JK will toggle if both inputs are at logic 1. If the J input is logic 1 and K input is logic zero, the flip-flop will go to the one state on the trailing edge of the clock pulse. If the J input is logic zero and the K input is logic 1, the flip-flop will go to the zero state. If both inputs are logic zero, the clock pulse will not cause any transition in the flip-flop (see truth table 9-1).

JK flip-flops provide all the advantages of an M-S device while avoiding the possibility of any indeterminate states. In addition, IC-JK flip-flops have a separate RESET input. When a logic zero is applied to RESET, the flip-flop will be driven to the **zero** state, regardless of the J and K input condition.



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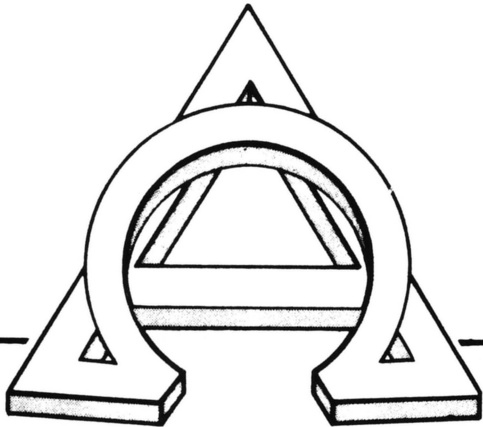
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"This unique soccer machine offers many unique features never seen before by this industry," said Ed Mc Cloud, president of Tornado, "Our ball trap, which rotates 180 degrees, assures the operator protection by dispensing only nine balls."

Elimination of needless ball ramps, elimination of glass on the playfield, and the quality wood used in the durable cabinet construction make down time and replacement parts "a thing of the past," said Tornado product literature.

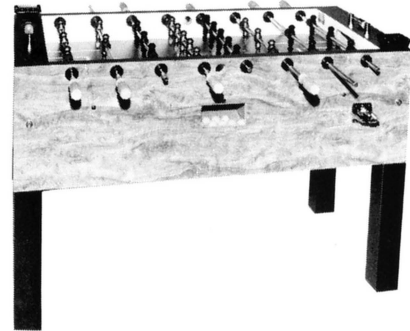
"A durable soccer machine which stands on the operator's route with minute maintenance is now available," said McCloud. "Survivor truly stands on its own merit."

Frank says, "This is the best made foosball table; I wouldn't recommend it otherwise."

or
Ed McCloud

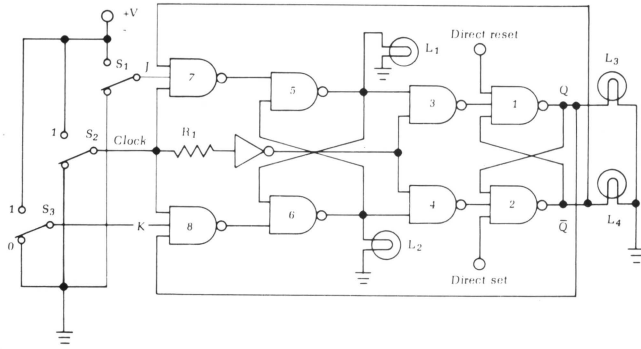
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BREADBOARD PROJECT: JK Flip-Flop



1. Wire up the circuit on the breadboard using four three-input NAND gates, four two-input NAND gates and one inverter. Don't forget the resistor, R_1 . Before applying power, set switches S_1 and S_3 to logic zero and S_2 to logic 1. Also, connect **DIRECT SET** and **DIRECT RESET** to $-V$.
2. Apply power, observing correct polarity.
3. Switch S_2 to logic zero. All three switches should be at logic zero now.
4. Note the condition of the Q and \bar{Q} outputs and apply a clock pulse by momentarily switching S_2 to logic 1 and then returning it to logic zero. As long as the J and K inputs are at logic zero, the clock pulse should not change the outputs. This corresponds to the first row of the truth table.

Truth Table

Input at t_n		Output at t_{n+1}	
J	K	Q	\bar{Q}
0	0	Q at t_n	\bar{Q} at t_n
		\bar{Q} at t_n	Q at t_n

5. Switch S_1 to logic 1 and enter the input statement on row two of the truth table.
6. Apply a clock pulse as above. Enter the condition of the Q and \bar{Q} outputs in row two of the truth table.
7. Switch S_1 to logic zero and S_2 to logic 1. Enter the input statement in row three of the truth table.
8. Apply a clock pulse as above. Enter the condition of the outputs, Q and \bar{Q} in row three of the truth table.
9. Switch S_1 to logic 1. This corresponds to row four of the truth table.
10. Apply a clock pulse as above. When J and K are at logic 1, the flip-flop will toggle, that is, the last state of \bar{Q} will be the new state of Q , and the last state of Q will be the new state of \bar{Q} . Since the JK Flip-Flop can be toggled, the clock input is sometimes called the **toggle input**.
11. Switch S_2 to logic 1. Observe the output as the **DIRECT SET** and **DIRECT RESET** are alternately disconnected from $-V$ and connected to ground.

PROGRAMMED TEST NO. 9: JK Flip-Flop

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

The J/K flip-flop is:

- a. A Master-Slave type flip-flop GO TO BLOCK 10
- b. An output triggered flip-flop GO TO BLOCK 6

2

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 4.

3

YOU ARE CORRECT!

Which flip-flops use one of their own outputs for one of its inputs?

GO TO BLOCK 4

4

The two types of flip-flops which use one of their own outputs for one of its inputs are:

- 1) Type D Flip-Flop
- 2) J/K Flip-Flop

The purpose of the Master-Slave type arrangement in flip-flops is to:

- a. Prevent more than one output combination per clock pulse GO TO BLOCK 9
- b. Increase the switching speed of the flip-flop GO TO BLOCK 2

5

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 14.

6

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 1.

7

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 12.

8

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 19.

9

YOU ARE CORRECT!

You have completed the test for lesson nine. However, before going on you should review any area in this lesson you do not fully understand.

10

YOU ARE CORRECT!

How many indeterminate states are there in a J/K flip-flop?

- a. Two GO TO BLOCK 11
- b. None GO TO BLOCK 19

11

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 10.

12

YOU ARE CORRECT!

The most simple flip-flop is the:

- a. Type D flip-flop GO TO BLOCK 7
- b. R/S flip-flop GO TO BLOCK 14

13

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 15.

14

YOU ARE CORRECT!

Functionally, the major difference between a R/S Master-Slave flip-flop and a J/K flip-flop is:

- a. No indeterminate states with the J/K flip-flop while the R/S Master-Slave flip-flop does. GO TO BLOCK 15
- b. The output of the R/S Master-Slave flip-flop does not change when

the clock pulse goes to zero while the J/K does. GO TO BLOCK 5

15

YOU ARE CORRECT!

Which flip-flops can be used as toggles?

- a. The Type D flip-flop and the J/K flip flop. GO TO BLOCK 3
- b. The R/S flip-flop and the R/S Master-Slave flip-flop. GO TO BLOCK 13

16

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 17.

17

YOU ARE CORRECT!

On IC/JK flip-flops, the RESET input will cause the output to be driven to the zero state when:

- a. The input to J is one and K is zero. GO TO BLOCK 16
- b. Regardless of the input. GO TO BLOCK 12

18

YOU ARE INCORRECT!

Refer to the text then return to BLOCK 20.

19

YOU ARE CORRECT!

When both inputs to the J/K flip-flop are one and the clock pulse cycle is complete:

- a. Q will always be one GO TO BLOCK 8
- b. The outputs will "toggle" GO TO BLOCK 20

20

YOU ARE CORRECT!

If both inputs of the J/K flip-flop are zero and a cycle is complete:

- a. The output will toggle GO TO BLOCK 18
- b. The output will not change GO TO BLOCK 17

Play Meter serves the industry twice monthly with twice as much.

FRANK'S CRANKS

By
Frank
Seninsky

Let's Dig into a new Atari game

Results are in on Penn-Ray and Wico joysticks/*Dig Dug* on review/Zaxxon control handle problem/*Hyperball* switches labeled wrong.

Atari's *Dig Dug*

Atari has built another good to good-plus game with *Dig-Dug*. There is not much to report on as far as improvements are concerned. The cabinet, control panel, monitor, and component layout are the same as their last model, *Space Duel*, and *Centipede* before that.

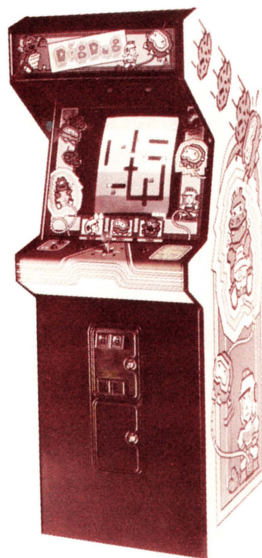
There are, however, some minor changes that deserve mention:

1. A metal toggle switch replaces the "cheap" plastic on/off switch in the back of the game. The old switch was easily broken off.

2. To compensate for the additional cost of this metal on/off switch (about 50¢), Atari has eliminated the slam switch and the key hook on the coin door. Thanks Atari! (Part of the credit should also go to Coin Acceptors Co. for not including an 85 cents slam switch and four cents key hook on their new coin doors.) Please put the slam switch and key hook back. The only protection a video game has against abuse is its slam switch. *Dig Dug* naturally failed the "Crank's Coin Door Kick Test." This test released my frustrations, and at the same time put up free credits. Each kick on *Dig Dug* resulted in a free game.

3. To further compensate for the added cost of the metal on/off switch, the safety power interlock switch on the back door—a one dollar item—has been omitted. This isn't too bad from an operator's standpoint, since most operators disconnect or reposition the interlock switch anyway. The interlock switch disconnects the 110 AC when the back door is opened slightly—in all fairness, Atari back doors are among the best in the industry—or when the back door warps or vibrates loose.

4. Wheels are now located on the back bottom of the cabinet so a thief no longer has to "invest" in a hand truck to wheel



Atari's *Dig Dug*



Sega/Gremlin's *Zaxxon*

Atari games off location. Just tip the game back and merrily wheel it away. Having wheels on the back of a video is like leaving your keys in your car's ignition with the windows open.

5. Concerning keys, my C440A Rowe key easily opened the back door lock on *Dig Dug*. Doesn't a game deserve a better door lock?

6. The display marquee is solid but can still be removed by a "marquee collector." Allen screws secure the top and bottom marquee moldings to the cabinet frame. Any small regular screw driver can easily be used to remove these allen screws. Not to put all the blame on Atari (Their *Tempest* embossed marquee was the best yet—why was it discontinued?) because most manufacturers neglect to foresee that it may be in the operator's best interest to order future video games without the marquee.

Atari has used cross-hair blade switches on the control panel joystick switches. These switches have been working satisfactorily and are self-cleaning. The joystick is made by Wico and has held up well. There are no operational problems with *Dig Dug*, and in general, the game is well constructed, as is to be expected of an Atari product.

Due to the minor omissions listed above, *Dig Dug* gets a 8.9 rating, out of 10.

Penn-Ray joystick

The Penn-Ray 8-position metal joystick was tested for one week on a *Berzerk*. The metal shaft wore down from a 3/8" diameter to less than 1/4" diameter as it banged into the top metal cover plate hole. The top cover plate hole was increased from 5/8" to 15/16". The four blade switches were crunched and all were found in the normally closed position. (All four are supposed to be in the normally open position.) The bottom plate had a 5/8" D by 1/4" long cylinder peened into the plate hole. This cylinder came loose and the joystick shaft could then move back and forth in the vertical direction as much as 1/4". In

conclusion I say that this joystick control must be redesigned. I would not recommend using it. I rate it, after testing, a 1 out of 10.

In a similar test, a new Wico 8-position beefed-up joystick was tested on a *Berzerk*, and after three weeks, showed no signs of wear. The joystick shaft is 7/16" in diameter and doesn't wear against the top plastic cover plate. A hard plastic bushing, located at the bottom end of the shaft, stops the shaft in all horizontal directions as this bottom bushing hits against the bottom plastic plate. Williams is using two of these joysticks on its new *Robotron* game. The blade switches are snapped into the bracket and are held securely. The only problem I see is that it is possible to break off the switch holding brackets when removing and replacing a blade switch assembly. I rate it, after testing, a 9 out of 10.

Zaxxon control handle

After testing *Zaxxon* for two weeks and having just received ten more *Zaxxons* that have the same problem, I find it safe to say that a problem surely exists. The 1/2" long bolt (3/16" D) that holds the control handle to the shaft only goes through one side of the control handle. This screw easily vibrates loose and, subsequently, the handle will pull off. Sega/Gremlin is aware of the problem but hasn't offered a retro-fit kit as of yet. The easiest solution is to drill a 1/4" D hole all the way through the handle, and shaft, and put in a carriage bolt with two nuts on the end.

There is another problem which you will encounter. There are three wires that run through the center of the shaft. These wires must be replaced with very thin wire because even if you put a 1/4" D bolt through the shaft, there won't be much room for the three wires to pass around the bolt shank. Also make sure that the shank of the bolt is smooth so the insulation of the wires touching the bolt won't wear away from the vibration. A simpler solution is to get a hose clamp and place it around the handle over the head of the Sega bolt. If the claim remains, (isn't taken) the screw can't vibrate loose.

Hyperball switch setting

In case your *Hyperball* isn't doing very well, part of the problem may be that the liberal and conservative switch settings are labeled incorrectly. Williams has issued a service bulletin (I haven't seen it because only distributors see these bulletins) reportedly stating that most, if not all, of the switch labels are reversed. Liberal is really conservative, and conservative is really liberal.

In upcoming reviews, Williams' *Robotron*, Bally's *Mr. & Mrs. Pac-Man*, and Pacific Novelty's *Thief* will be examined. I'm also testing the *Bugtrap Logic Comparator*.

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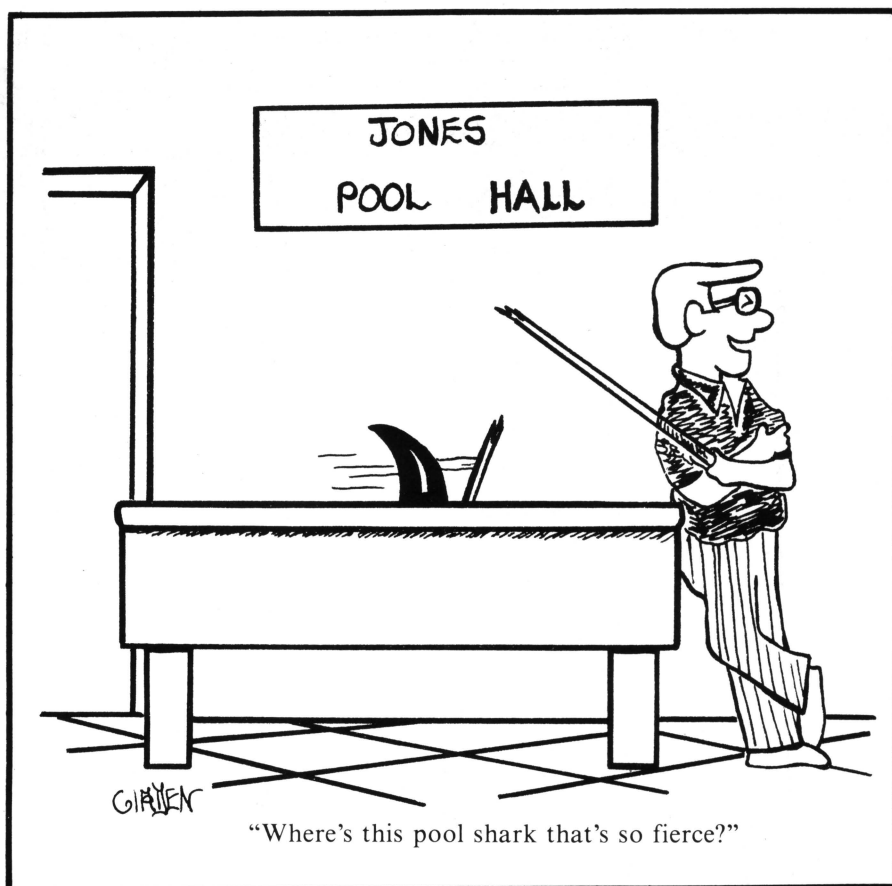
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COIN OF VANTAGE

By
Paul
Thiele

Bally's Vector is son of 8-Ball Deluxe

If operators could be sure a brand-new pinball would earn substantially more money than a used one, they probably would buy more new pinballs.

I feel a great sense of missing the boat because I didn't buy a Bally *8-Ball Deluxe* (8BD), and in Los Angeles you just can't find one of them for sale used.

However, I feel glad about buying two superior used games recently—Stern's *Freefall* and *Flight 2000*—that have been earning as much as I could expect from any pinball. In other words, their incomes have approached some of my best videos.

The main reason operators don't buy many new pins anymore is that they cost too much when measured against the earning capability of video games. Pin operators might hate to admit it, but a new video priced at \$500 more than a new pin is a better investment all the way around.

Never mind that a video probably costs about half as much as a pinball to manufacture. A hit video will out earn a hit pin, and will usually have a longer life at the same location. It is quite clear that the manufacturers realize this, leading to the seemingly excessive price of new videos.

Prices for new pins are on the rise, too, and this is where an operator might be well advised to draw the financial line.

Since the entrenchment of video games in the amusement industry, some distributors don't order pins they believe will not be popular. For example, no Los Angeles distributor has ever put a Game Plan *Mike Bossy* pin on its showroom floor.

If you followed the 1981-82 L.A. Kings

hockey team during the regular season, you'd understand the lack of interest in a hockey-theme pinball in Southern California.

So when a truly superior pin comes around (like 8BD), the operator is faced with a question: To spend, or not to spend?

Such is the case with Bally's pin, *Vector*. This game could well be the next 8BD, mainly because *Vector* recalls the formula used in 8BD: good graphics, well-designed playfield, and play-related speech.

But *Vector* has even more. It has a split-level playfield, multi-ball play, and it introduces a "Flip-o-Meter" flip timer feature, (a digital display in the playfield) which has been a long time in coming. The player with the fastest flip speed (the time between actuating the Vectorscan ramp gate and a rollover near the upper saucer) is awarded a special.

Meanwhile, the game's speech compliments and informs the player during the game.

The operator who buys this game should watch out for the customarily sluggish flippers typical of recent pins shipped by Bally. Sometimes the company overlooks the adjustment of the flipper end-of-stroke (and thumper bumper) switches before the games are released.

This trend began even before the introduction of Bally's 1980s-style flipper assembly. Another adjustment operators may want to make on the new flipper is tightening the return spring for a snappier downstroke.

Bally's reasons for retooling its flippers

remain unexplained, except to do away with the bakelite link and the former plunger and pawl. The new flipper is not noticeably better, and Bally might have put its efforts and capital to better use in an era when "retooling" is becoming a cuss word. But in all fairness, if the new unit is properly adjusted and maintained, it works just fine.

One traditional weakness on Bally flipper assemblies is being corrected on *Vector*. The brittle Phillips machine screws that fasten the coil stop to the mounting bracket have been replaced by longer hex-head machine screws. The old screws often sheared off, and you had to remove the flipper assembly from the playfield to twist out the screw from the other side of the mounting bracket. Let's hope this is the screw that pin mechanics have been waiting for.

Vector brings to mind a trivial question I've had since the introduction of talking pinballs: Do talking games sent to foreign countries talk in those countries' languages?

I ask because when your game is over on *Vector*, it says, "Hit the showers!" I wonder if the games sent to Canada, when the last ball drains, say, "Hose off, eh!"

On pressing the credit button on *Vector*, the game's deep voice announces, "I am a P-A-C...", which might mean that it's the actual voice of "Mr. Pac-Man." If not, it could be a trick by Bally to get the *Vector* player to subliminally think of *Pac-Man*.

Such unscrupulousness by Bally in the future to get players to spend more money would be greatly appreciated.

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CRITIC'S CORNER

By
Roger C.
Sharpe

...And now for something entirely different

I suppose the time has come, for some obvious reasons, to relate a story I have recounted every now and then about my first meeting with Ralph Lally at a New York State coin-machine show in Stevensville, New York, back in 1975. I remember being taken aside by Ralph after a few games of pinball in the resort's game room and our walking to an empty spot in one of the dining rooms to talk. Ralph had an idea about starting a column in *Play Meter*, which would review games as they came into the marketplace.

Admittedly, the thrust of the conversation revolved around pinball, since it was the main attraction at the time and one I had become very close to, given my traveling and then ongoing work with my book. It was an interesting discussion and what comes to mind was the observation I had to offer Ralph about my feelings regarding the validity of such an endeavor.

Although I was relatively new to the business, I did have my impressions and opinions which had quickly formed as I came into increased contact with industry members. And one of the observations I told Ralph was my surprise every time I visited a distributor who was selling equipment to an operator. I could never believe how blasé the transactions always were even though thousands of dollars were being exchanged.

There were businessmen making a purchase, an investment in an item they hoped would bring a rapid and profitable return, and they hardly ever blinked an eye or really took a close look at what they were getting and whether it was the right piece for their location.

I felt that somehow there was a need for more give and take, more questions to be asked and more answers to justify the deal. I often reasoned that if those same men were going to a department store to pick out a washer or a television set, they would scrutinize every detail before committing themselves to one particular model. And there they were just getting anything they could or what the distributor had on the floor at the time.

So Ralph's proposition looked good to me. I hoped that maybe I could have an impact on manufacturers, distributors, and operators and possibly heighten their sensitivity and understand about the products that kept them in business. Maybe there would be a chance to provide a service in the form of observations and analyses of games as they become available, and eliminate some of the guesswork as to which games showed more promise than others and why they might be more attractive to players. It seemed to be a void no one else had ever tried to fill before, and I was willing to take the opportunity and give it my best shot.

One of the things which Ralph hadn't bargained for was my inclusion of a ratings system, and for those who weren't around at the time, the reaction was pretty heated to say the least. But Ralph stuck with me and the column and now, over six and a half years later, I'm still churning out the games (over 200 at last count) and am ready to embark on a new direction with the addition of video games, and even all machines for that matter, that seem to be viable for today's market.

It's going to be a matter of adjustment for me since doing only pinball for so long has made the task of reviewing them an almost standard routine. But I don't want any of you to think that over the years I've ignored video. I haven't and have played my share of machines while learning to adapt to the ever-present changes inherent in the art. I do have my opinions about the video craze and the state of the equipment presently available, which I'll be delving into as the months pass, but for now it's probably time to see what's around and how they stack up given the current playing public and what they're looking for for their money.

One final point before I begin is a refresher course concerning the ratings and what they mean. Games can get anywhere from a # to a #####, which very simply translates into a poor, fair, good, or excellent game, depending upon many different factors and a great deal of subjectivity.

Ideally the ratings are an indication of how well a particular company is evolving in terms of its equipment; although I know that many of you tend to see the ratings as games from one company against games from another. That's not the intent even though I can see how the ratings game can be seen in this manner. So I'll make a revision and say that there is a little bit of overlap, but that the ratings, that final tally, should never be taken as the final evaluation. Rather, look at the breakdowns to understand a given model and what it offers or doesn't offer and the rationale as to why the reaction is what it is.

In any case, the ends never totally justify the means in this space, and you should never feel that your job has been done for you, because it hasn't.

What the "Corner" is here for is to raise your level of awareness about a specific game and offer tips and directions as to what the features are and what you should be looking at when you're evaluating games for your location. It's an aid, not the sole source, and hopefully will get you to realize better what's being produced and why, as well as whether the game is right for you. Just because a given game isn't a hit for one place, doesn't mean that it can't be for another. Players are different all over and have their own tastes and preferences. Your task is to understand your customers' needs and what they will play versus what you *think* and *hope* they'll play.

It is an extra step that makes the difference between a successful business and one that has gone beyond to the next plateau. In this day and age, it's probably more important than ever before, and what I hope is that the writings in this space will be taken in the spirit by which they are given. With this said, let's get on with the show and see if I can handle the load of a multidimensional industry offering a potpourri of models and versions that are enough to give anyone nightmares, except maybe for this lone game fanatic who is evolving along with a changing and

growing business, trying to stay in step or possibly even a bit ahead. We'll see how the transition goes.

Williams' *Hyperball* and Bally's *Rapid Fire*

What better way to begin the new generation of "Critic's Corner" than with a departure from what has been the normal format over the years. Here we have two products which are a microcosm of the industry in many ways and also, as of this writing, the subjects of much controversy and legal maneuvering as to infringement of design. But the fact remains that the creative impetus of Steve Ritchie has once again struck to alter the face of the coin-machine industry with a new category of game that is neither a pinball machine nor video game.

Should we call this new effort a 'trig-vid' or some other hybrid name, or just state that it is a gun game, with all due acknowledgement to J.F. Frantz who kept the notion alive. Whatever the ultimate response and success of the format, let it be accepted that Williams was the first to venture into the new direction when they unveiled *Hyperball* at the AMOA last fall, however, with that recognition aside, the games must stand on their own merits and whether the playing public is ready for the challenge that awaits.

PLAYFIELDS: On the surface, to the player, both models provide a very similar

board layout with a gun mechanism at the bottom of the field and targets on the sides and at the top. *Hyperball* features an alphabetic array of holes and targets missing only the letters Q, X and Z, with seven holes on either side and nine 'targets' at the top of the board. *Rapid Fire*, meanwhile, features four holes on either side, complete with ornate silver coverings, and six targets F-R-E-N-Z-Y at the top of the field. Both games provide dual trigger guns for shooting out balls onto the field, while *Hyperball* has a Z Bomb button to eliminate all enemies on the field at any given time, and *Rapid Fire* one-ups this with two buttons—a panic button to destroy all attackers, and a laser cannon to wipe out invaders when the going gets too close for comfort.

ANALYSIS: Williams has a great little booklet given out at the recent AOE show that's must reading for everyone. Called "Hyper-Tactics" it details the strategy behind the play of the game and what all the features mean such as "playing by the letters" and how to maximize shots to increase score and protect the center field "Energy Center."

Basically the board on *Hyperball* is a series of lightning bolts which must be hit on the sides before they begin their ascent up to the top and then down on the field toward the "energy center."

Rapid Fire approaches the play by a

more personalized treatment of lit warriors and two space ships at mid-field and incorporates a force field feature as well as the challenge of spelling out F-R-E-N-Z-Y at the top of the board. There's more to both, but space and the complexity of spelling everything out would only cloud the issue of the games themselves; so you'll have to get a closer, firsthand look yourself.

GRAPHICS: *Hyperball* is a blaze of red and black, with good sound effects and an on board digital display for directions and scoring accomplishments, as well as telling players how many waves have been completed, signally a special reflex wave for increased values and lastly a place to have players enter their initials when they've managed a high point total.

Rapid Fire brings to light a new Bally cabinet design and some strong graphics as well as sound effects for a total package that is truly attention getting.

PROS & CONS: Whichever game seems to be the better one is a moot point to this writer only because it is the format of play they both offer that is really the issue. The nuances are really very subjective as to which fires more balls more rapidly or whether either has gotten the act together mechanically for long duration reliability over time. What is more important and the ultimate telling sign will be the reaction by players to what I see as being a more interactive form of video rather than an evolu-

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tionary stage for pinball.

Just because balls are used doesn't mean they fall into the latter category. For me, personally, the problem is that I've never really been into "gun games" although there are moments I've experienced playing both that were more than satisfying. The issue will, however, be whether the games fare well outside of the traditional arcade locations and can make that transition to the street operator.

Also, the reaction to both will tend to shape whether we will see more efforts along these lines, or chalk them up to singular achievements that didn't hit at the right time. My impression is that there is a market for both, admittedly specialized at this stage, but that the games provide an alternative form of action and entertainment that the industry sorely needs.

Only time will tell how strong the demand will be and whether the format will find a niche for itself. An important consideration is positioning, which I can't emphasize too strongly. Either or both games can't simply be put in a lineup of pinball machines and be expected to stand out on their own. They need a special place in any location that calls attention to the fact that the medium is different than anything else and deserves a spot by itself to get that point across.

RATING: Regardless of the parallels in design or even basic theme on the surface, or even the differences both manufacturers will hype in the coming weeks and months, both games deserve the attention by being a departure from the norm and an attempt to bridge another plateau in game design. For these reasons alone, both get a ####.

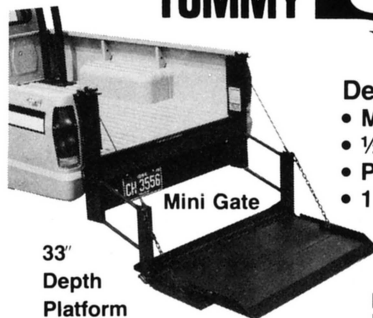
Taito's Alpine Ski

Even though it's getting close to summer, Taito looks to give players a sporting chance with a very realistic effort that might seem more suitable for a home computer game cartridge rather than the conventional arcade models we've all become so used to.

PLAY: With a joystick control and accelerator button, *Alpine Ski* offers three games in one. The action begins with a chair lift carrying the skier to the top of the slopes and the first challenge of the downhill course, with players having to maneuver around snow mobilers, other skiers, trees, woods, and even icy ponds. If this portion of play is completed, it's on to a slalom race with players having to guide themselves around the flags in order to gain points and earn the chance for the final phase—the ski jump—before the play is repeated.

ANALYSIS: The play is extremely faithful to its original inspiration and definitely isn't for those accustomed to the bunny slopes. But what *Alpine Ski* does provide is some good reflex and skill control in getting through the courses and the obstacles that appear on the screen. The challenge is to score points by directing the

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skier around and over the obstacles on the screen and not to fall down, which takes away valuable time since the game is time-based, with increments added at specific scoring limits. So the player is vying against time to increase it and also attain the highest possible score he can.

GRAPHICS: Visually, the game is great and really a measure of what can be done if a company feels the need to give the players a more attractive and realistic package. But *Alpine Ski* is really in the class of Mattel's Intellivision cartridge of the same sport, which is a compliment to what both have achieved. Add to this some good sound effects and it's all there for the taking.

PROS & CONS: On first look, the thing that came to my mind was the traditional seasonal barriers that often plague sports-inspired coin machines, but *Alpine Ski* may be able to buck this trend just because it is different from what is predominantly being offered today in terms of video. There's also the other intangible factor that we have a game which isn't out to ravage civilization or destroy everything and anything on the screen.

It's a refreshing change of pace from the proliferation of violence and should appeal to that elusive female audience as well as those males who want to try their skill in a very realistic, three-dimensional setting. And, if nothing else, this is one game that

should create its own timeless market in any and all ski lodges around the world, where sometimes the action of the real slopes tends to sway some enthusiasts to the fires and warm drinks of what are often very social meeting grounds.

RATING: All in all a good game which will survive on the appeal of the sport and coin-machine player's affinity to bridge reality with fantasy. Let's give it a ### for effort.

Gottlieb's Devil's Dare

The follow-up to *Black Hole* and *Haunted House* doesn't bring with it an inverted playfield or any other visible gimmick to get its point across. Rather, it's a totally integrated package that features a well-balanced, fully-packed playfield that's a pure pinball machine, pure and simple.

PLAYFIELD: The action begins with the ball entering at the top right where there is a lone flipper and three, higher-up drop targets. Move over to the left, and there are four spot targets. Three thumper bumpers fill in the middle, with a spinner at the right and a slingshot just below for more up and down action.

Farther down on the right are four more spot targets which can mean the possibility of an extra ball, while the middle of the board features a bank of five drop targets and an entry to the right of this that propels

the ball around and behind the targets to the left side of the field. At the left is a free-standing bank of five more drop targets as well as an extreme kick-out hole for potentially locking a ball for multi-ball play, while just above is a spinner into another area for a potential lockup. Also at the left, farther down the board, are two more spot targets (blue) and a bottom that features a double lane entry down to the flippers as well as Gottlieb's ball save feature on the left side.

ANALYSIS: By just looking at the board and not getting into the game, you run the risk of prejudging what is truly an excellent machine. Not only are all the features tied into one another, but something that pinball hasn't done often enough is the inclusion here of some good lateral movement with that center roll around, that conjures up the image of Williams' ill-fated *Algar* and a top left spinner that might have been nothing special except that someone felt strongly enough about basic game play to have the ball kicker out, up and over to the top of the board, rather than just out and down toward the flippers. It's a subtle touch, but a great one.

As for the features, of which there are many, finishing any bank of stand-up or drop targets will activate that lower left ball save while the center bank completed activates that lower left kick-out hole for

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locking up a ball as well as earning 2X values.

Finish the other drop target bank, and that top left spinner is lit for the beginning of three-ball multi-ball play, which has an added twist of a multi-mode timer that adds up units of time for however long a player can keep in multi-ball play with the final reward being an extended multi-ball play extra ball for getting over 50 (for two-ball) or 75 (for three-ball). Although the game is primarily geared to three-ball multi-ball, those blue targets at the left can mean the lighting of the outside lanes down to the flipper for a chance at 'instant' two-ball multi-ball play.

The design is balanced with an ample number of long shots from right to left and left to right as well as the enticement of those center targets and some equally as satisfying reverse to all points of the board. **GRAPHICS:** *Devil's Dare* brings some bright colors and an ominous face of a maniacal horned creature that seems to leer out and challenge those who pass. Add to this some good speech and sound effects and the game carries it off on all levels. **PLAY:** What can I say? Here is Gottlieb's first seven-digit effort, and the result is pure pleasure for repeat play and that ever-present challenge of the phantom wizard whose score flashes out begging to be topped. And, gratefully, the game poten-

tial, in terms of points, doesn't abuse the addition of the extra digit and high scores should top out at around the two to four million barrier, well within reach of those who like to think that they can get just a bit closer with each succeeding game. For limits you might want to try, for extra ball areas, a 600,000 start followed by 1,200,000 points. In free play areas, these levels should withstand an increase of about 200,000 to 400,000 points.

PROS & CONS: Even though there have been lean times, over the years Gottlieb has been revered by players for their integrity of design, highlighted by smooth action and well-placed features. Well, for me and others I have talked to, *Devil's Dare* might just be one of the all-time standouts for this company in terms of pure excitement and balance throughout the board, with features neatly tying into one another in perfect harmony. In fact, there's something for everyone and every level of player from the novice to the skilled pinballer looking for that test of skill.

Unfortunately, at any other point in time, the game would get the attention and recognition for what it is—a strong, solid effort. However, the fear is that the subtleties will be lost to those not willing or understanding enough to sense the potential playing power of the game and the fact that it should prove to be good,

steady earner over the long haul, without the apparent frills that would ordinarily set it apart.

RATING: For the seventh digit and an enduring quality that keeps the game forever enjoyable to play and satisfying as well, a well deserved ###.

Well, that's the first new "Corner"; and, as always, I'm open to your feedback and reactions to what I am doing or should be doing to give you more of what you want. In upcoming issues there will be spotlights on the hybrid efforts of Gottlieb and Bally which are now beginning to hit the streets as well as a look at how Stern has changed the complexion of pinball with their novel *Orbitor I* and more on video and how it too is undergoing some change in direction as witnessed by such games as Taito's new *Wild Western* and Atari and Bally's similar make-your-own-maze games and more and more.

The action is obviously heating up for the coin machine business, not only in terms of legal decisions around the country, but also in game design such as Williams' *Robotron 2084* or Konami's *Tut* and even the likes of a *Zaxxon* with its three-dimensional effect. So stay tuned and I'll try to keep you in on the action as it happens. Until next time, be well and prosper.

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Shooting down trouble is easier

Atari has introduced a new programmable test station, the *PAT 9000*. The system offers features which allow easier troubleshooting procedures for faulty logic boards.

The system was specially designed to allow more ease in testing the operation of an Atari coin-operated video game by enabling the technician to remove the printed circuit board from the cabinet and then test the board.

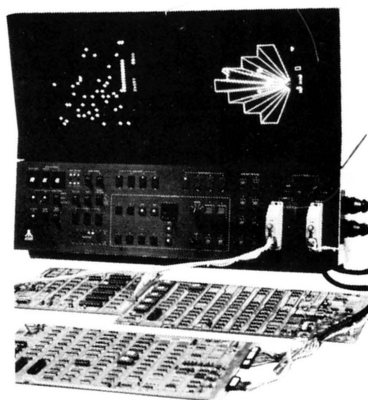
The *PAT 9000* is capable of testing more than just the main logic board on both color QuadraScan and color Rastar systems. The audio amplifiers and voltage regulators on the regulator/audio boards can be powered up and tested with the main logic board. *Trak Ball* steering boards can also be tested with or without the mechanical *Trak Ball* unit itself.

Special features include dual logic board testing, which allows the technician to compare the signals of a suspected faulty board with those of a known good board, without the bother of constantly swapping boards. This is particularly useful with today's signature analysis troubleshooting techniques.

Additionally, it will store pulses appearing on the game RESET trace, which is lit up by an LED display, indicating if the RESET trace has been pulsed. This affords the technician freedom to come and go during the actual testing cycle.

The system allows the greatest amount of technician maneuverability with a feature that allows a stream of pulse to be sent along a switch input automatically, thus allowing the technician to manipulate the logic board with his free hand.

Service and adjustment of the *PAT 9000* is easy due to the modular nature and ease of access to the internal components. Double protection is provided on the game power circuits by an electronic trip circuit with a fuse backup.



Shoot'em up

The excitement and adventure of the Old West becomes today's reality with Taito America's newest video game, *Wild Western*.

The scene is complete with good guys and bad guys, horseback shootouts, and an attempted train robbery, including the sounds of gunshots, a train whistle, and Western background music.

Wild Western offers the player a real wild West shootout, testing his skills as sheriff to conquer the outlaws. The action never ceases. If one band of outlaws is eliminated, another gang appears from behind the moving locomotive train ready to get the sheriff.

The player is the sheriff (on horseback and in white, of course) and has three sheriffs (adjustable) per game. The player can't shoot over the train, but he can slow down and shoot at the bandits from behind the train or gallop fast enough to get ahead and shoot from over his shoulder. Both bandits and the sheriff can cross over the tracks for a closer shootout, but must watch out for ricocheting bullets.

A player can maneuver the sheriff with the joystick in eight directions and position his revolver to fire in eight directions. The sheriff falls if he is shot by one of the outlaws (The sheriff must dodge the steady stream of bullets.), or if he rides recklessly into a cactus, rock, the train, or the fort. He'll also lose his turn if he rides off the bridge into the water.

If one of the bandits jumps on top of the train, the player can jump on the train too in order to have a face-to-face shootout. But, if the train passes the water tower, the player must quickly push a button so his sheriff lies down on top of the train or else he'll be thrown from the train. When the sheriff's horse gallops near the train, the player can jump back in the saddle again.

If the player wipes out a bank of outlaws, he has a chance to practice his aim. The player's horse tosses a silver dollar into the air and the player has one try to shoot it for double the bonus points. If the player misses, the horse laughs. A total of 50,000 (adjustable) points earns the player another sheriff.

The game is over if three bandits jump on top of the train at once or if the sheriff is knocked off his horse three times (both adjustable) or if the player loses all three of the sheriffs.

Wild Western can be played with one or two players. It measures 67" x 24" x 30".

Caveman— the missing link

Escaping the deadly Tyrannosauruses while hunting Brontosauruses, Tricerotops, and Pterodactyls is the caveman's challenge in D. Gottlieb & Co.'s newest offering, *Caveman*.

Pinball and video technology and excitement have been married in this truly integrated pinball/video game. *Caveman* takes players on a delightful prehistoric chase during which they may move freely from the challenging pinball playfield to the joystick operated video maze section. In fact, to achieve maximum scoring, the player must learn to switch back and forth.

Starting play in the pinball section, the player has four flippers with which to shoot two drop target banks, building both bonus and bonus multiplier. He must also attempt to light the C-A-V-E rollovers and kicking targets which light the extra ball feature. They only light the feature, however, for the player must enter the video section to capture and earn his extra ball.

Vari-targets on the left and right and two center entrances near the pop bumpers provide four easy ways to enter the video section. Once in, the player's caveman is faced with five gentle Brontosauruses. Gentle, that is, until he has killed them. On a progressively shorter and shorter time delay, the Brontosauruses then regenerate into deadly Tyrannosauruses which chase the caveman, who has become both the hunter and the hunted. After successfully completing two screens of Brontosauruses, the WOW's are lit, but they must be earned in the pinball section on the vari-target feature. Players can move between the pinball and video section as often as they wish, in fact, they are prompted to by the interactive speech/sound system.

Of technical note, *Caveman* features a completely redesigned and distinctive lightbox which sets it apart from any other game at any location. *Caveman* also uses Gottlieb's new System 80A pinball electronics featuring both 7-digit displays and expanded self-test and coin credit combinations. Powering the 13" color monitor is Gottlieb's flexible and expandable new high-resolution video microprocessor.

Marshal Caras, Gottlieb's vice president of marketing, said, "We believe we may have found the "Missing Link" in today's marketplace. *Caveman's* combination of technologies and its captivating graphic appeal is attracting both video and pinball players. *Caveman* is doing superbly on test locations and Gottlieb will begin shipping to its distributors soon. Our early estimates of *Caveman's* earning ability were vastly lower than our test locations are showing; *Caveman* is surpassing all of our projections."



A room full of nasties

Tazz-Mania is the latest solid-state video game for one or two players from Stern Electronics.

The main character of the game—represented on the screen by a green, hip-shooting devil—scores points by destroying a room of bouncing "little hoppers" before the walls close. By activating a control panel "fire" button, the player shoots "hoppers" while he avoids collision with or shoots eleven varieties of attacking "nasties." Player gains access to two room exits when all the "little hoppers" have been destroyed.

In a clinch, the player may activate a control panel "zapper button" that fuses one of two "zappers" stockpiled at the start of the game. Each zapper clears the room of attacking "nasties" and temporarily stops the walls from closing in.

Game action speeds up with each progressive level of play, 19 in all; and for every 10,000 points scored, a bonus hip-shooting devil is awarded.

Other special scoring features include:

- In addition to 20 points for each "little hopper," players win 200 points for annihilation of "big hoppers" that appear on the screen later in the game.
- Players earn from 50 to 200 points for each "nasty" destroyed.
- Bonus rooms, appearing every third room throughout the game, give players the opportunity to score extra points by tagging numbers that appear on the screen. Players also win bonus "zappers" by tagging them.

Tazz-Mania, designed by Universal Research Laboratories, Inc., a Stern subsidiary, features a new, more descriptive attract mode that outlines game instructions for the players on the screen.

A new, slimmer and shorter cabinet design positions the screen at a better viewing and playing angle and features a pull-out drawer for easy front access to logic boards.

Can you Dig this a-mazing game?

Bursting tomatoes and dragons, an intrepid miner, and a garden patch of vegetable delights are highlights of *Dig Dug*, a new coin-operated video game introduced by Atari, Inc.

Dig Dug is another colorful maze game but with a special difference—the player creates his own maze by digging underground tunnels.

The player controls *Dig Dug*, a dauntless miner with three lives who burrows beneath the garden patch. *Dig Dug* feverishly digs tunnels to avoid the precocious “Pooka,” a fat red tomato with yellow sunglasses and the ferocious “Fygar,” a fire-spitting green dragon.

Dig Dug has perfected two wily ways to eliminate his pursuers. He turns quickly, catches them by surprise, and pumps them up until they burst. Or he digs a strategic tunnel underneath a waiting rock so that it falls and squashes the unsuspecting enemy.

However, if *Dig Dug* decides running away is the wiliest way, he can merely stun Pooka and Fygar and then chomp his way to safety.

Special vegetable prizes appear each round for ten seconds in the same spot in the tunnel where *Dig Dug* started to dig. The veggies are worth extra points, but there's only one per round so *Dig Dug* must dig quickly to catch it. A round is completed when all the Pookas and Fygars escape above ground or are eliminated by *Dig Dug*.

Pooka and Fygar are chameleon-like foes. They travel through the dirt as invulnerable ghosts but become real and vulnerable when exposed to air in a tunnel or cave.

Dig Dug offers a changing game screen, multicolored layers of dirt, 21 sound effects, and calliope accompaniment.

Players can choose their own skill level. After finishing a game, the player has sixteen seconds to begin again at the highest skill level achieved instead of returning to the initial difficulty of Round 1.

The top five master miners can enter their initials and scores into *Dig Dug*'s high score table. Non-volatile memory retains the scores even when power is switched off.

Dig Dug is available in the standard upright, “mini” cabaret (with optional side panel decals), and cocktail cabinet models.



Grow!

The latest in a long line of Bumper Pool Tables—built and sold only by Valley—the completely redesigned *Tiger Cat* is expected to open many new locations for this fascinating game, claims a Valley spokesman. “This new table has three major improvements, which we feel are of particular interest,” says Emil Marcet, director of sales of the Bay City, Michigan, table manufacturer. First, it is covered with Cheyenne leather, which was developed for Valley's exclusive use. This high-pressure Panelite laminate has the look and feel of an expensive leather, and yet it wears well under heavy commercial use. “And it's ours!...we'll be using it on other products in the future,” he continues.

The second key feature is the all new ball return system. The balls are returned to the ends of the table for the player's convenience. In addition, the red balls are automatically separated from the white balls, and each player alternately receives red and white balls for the subsequent game.

Also, each corner of the table is marked with the Valley Cougar symbol stamped on the stainless steel corner caps.

Other *Tiger Cat* features include solid anodized aluminum bumpers with lively rubber rings; anodized aluminum trim and accents; 3/4-inch one-piece Italian slate playfield; completely redesigned coin and trap assembly; new leg construction, with individual levelers; and a top frame assembly which is easily removable. Included with each table is a set of ten balls, four 48-inch Valley manufactured American-made cues, chalk, chalk holder, and playing rules. Shipping weight is 370 pounds.

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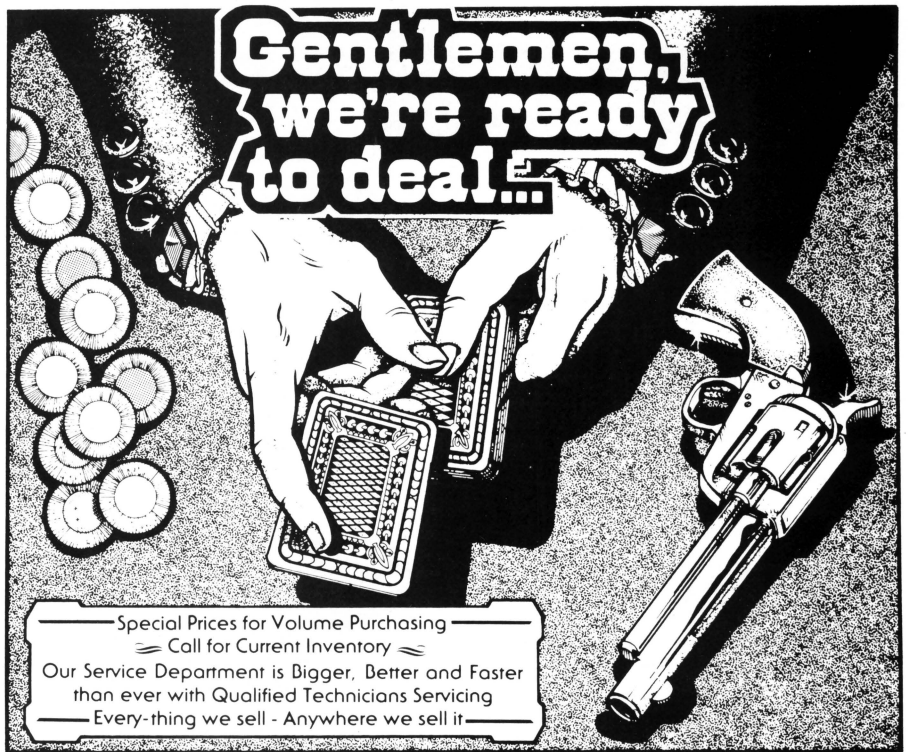
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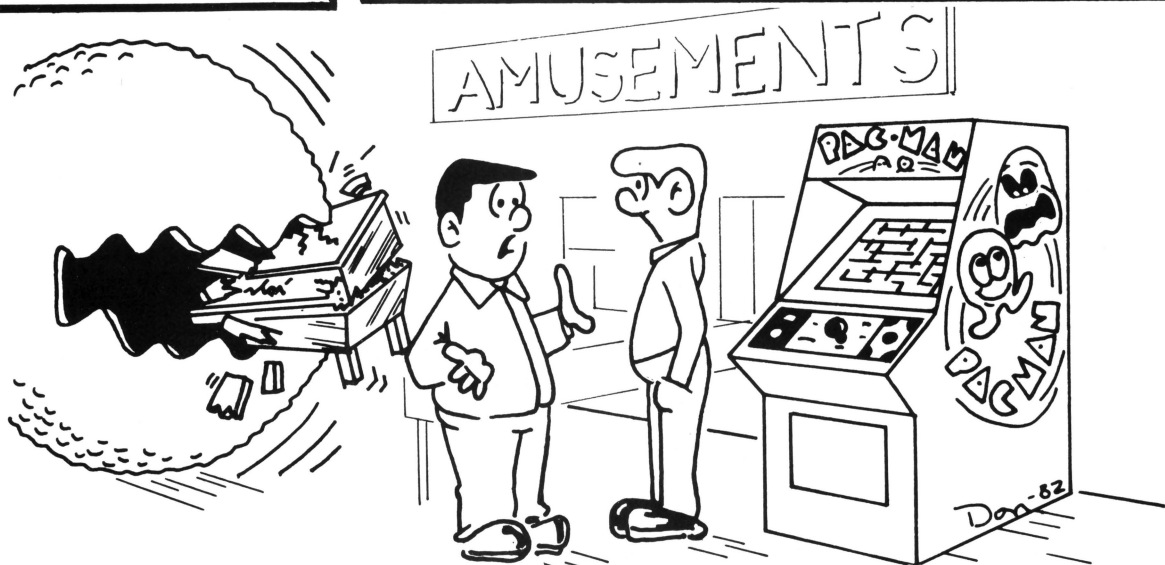
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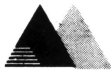
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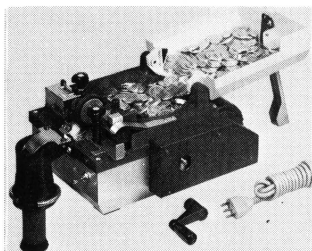
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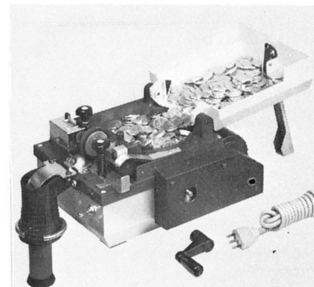
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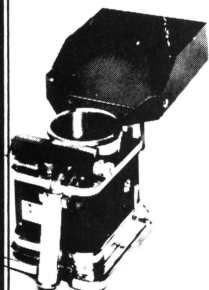
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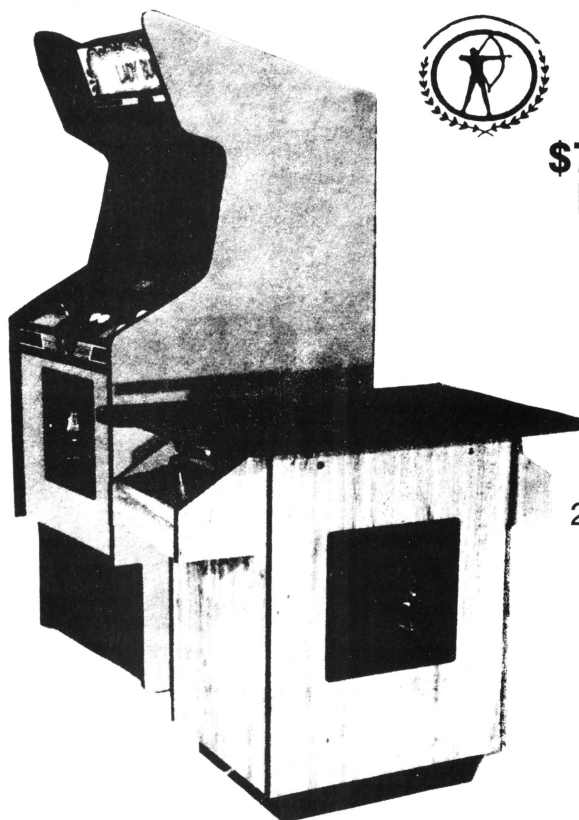
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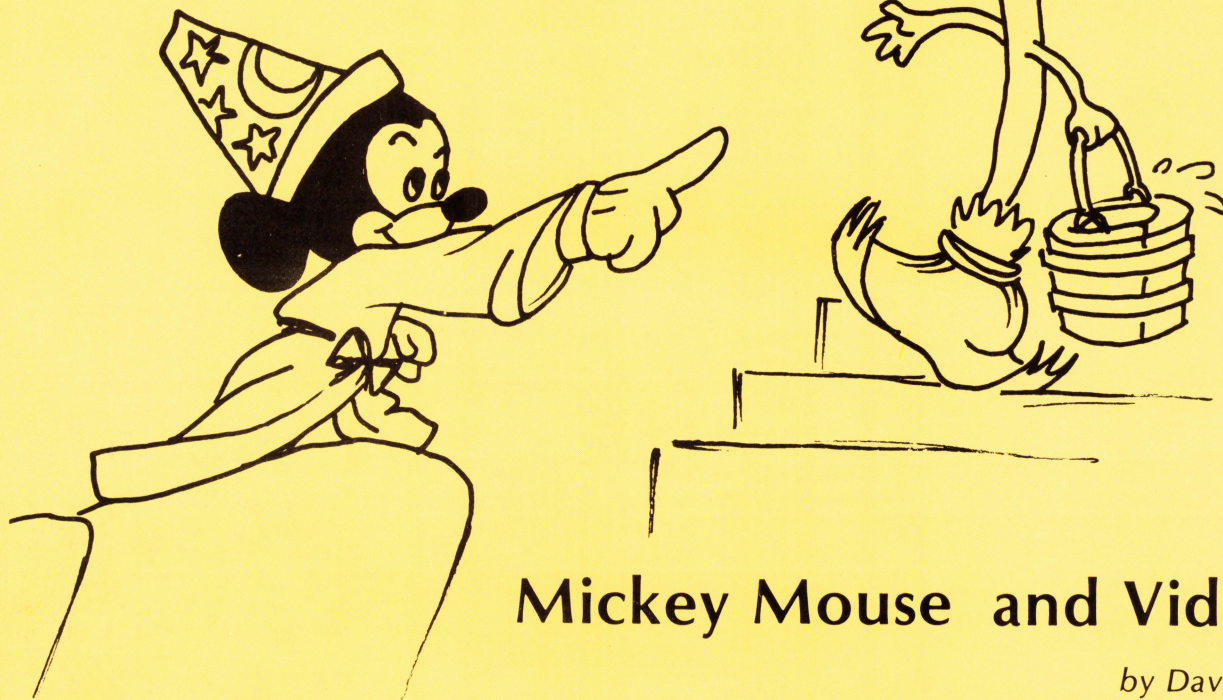
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THE LAST WORD



Mickey Mouse and Video

by David Pierson

One of the most memorable moments in motion picture history featured Mickey Mouse as the Sorcerer's Apprentice.

Anyone who has seen the Disney film "Fantasia" no doubt remembers the plight of Mickey: dressed in the borrowed gown of his master, the Sorcerer—he tried to fight off the seemingly endless rush of bucket-carrying brooms. Though he took an axe to them and chopped them into little pieces, each splinter would rematerialize into a whole broom, intensifying the assault on Mickey.

What was it about this particular scene in cinematography that has remained forever stamped in the memory of those who've seen it? After all, it's only a silly cartoon character in an apparent comic struggle.

And exactly how does it relate to video games?

Well, if psychologists are interested in studying the appeal and effect video games have on American society, they would do well to consider the video struggles in the light of Mickey's seriocomic struggle.

Starting with *Space Invaders* and continuing with *Asteroids* and other hit games, we find the players of video games taking on a role similar to that of Mickey Mouse as the Sorcerer's Apprentice. It's one against many where the

"many" are unthinking, unreasoning foes bent solely on annihilating the player/Mickey. And, no matter how hard the player/Mickey fights back, more enemies appear in always greater numbers, with even more determination to crush the individual.

Psychologists may see here an archetypal pattern which speaks subliminally to each one of us.

That's why the comical Sorcerer's apprentice has remained in the consciousness of modern society. And that's also a good possibility why video games have so captured the imagination of society. Like the Disney film, today's video games speak to us on another level.

Obviously the Disney film producers were aware they had tapped something with the "Fantasia" scenario because they used it time and time again in other motion pictures—the most memorable of those reuses is Davy Crockett standing alone on top of the Alamo fighting off the whole Mexican army, of course, Davy Crockett probably wasn't the last to die (and probably not exactly like that), but the producers saw the scene as good cinematography.

And that's the same reasoning that brought about the video game phenomenon. By following upon the same theme that made *Space Invaders* a hit, manufacturers were able to turn out other hits which,

strangely enough, seem to be tapping the same chords in people that Mickey touched so many years ago.

What does it all mean to the video game business?

For one thing, the parallels are obvious and can easily be elaborated upon when industry people talk with television and newspaper reporters. For the reporter, it means good "copy." For the industry, it means good press (After all, aligning the appeal of video games with something as unquestionably wholesome as a Disney film has to be beneficial.)

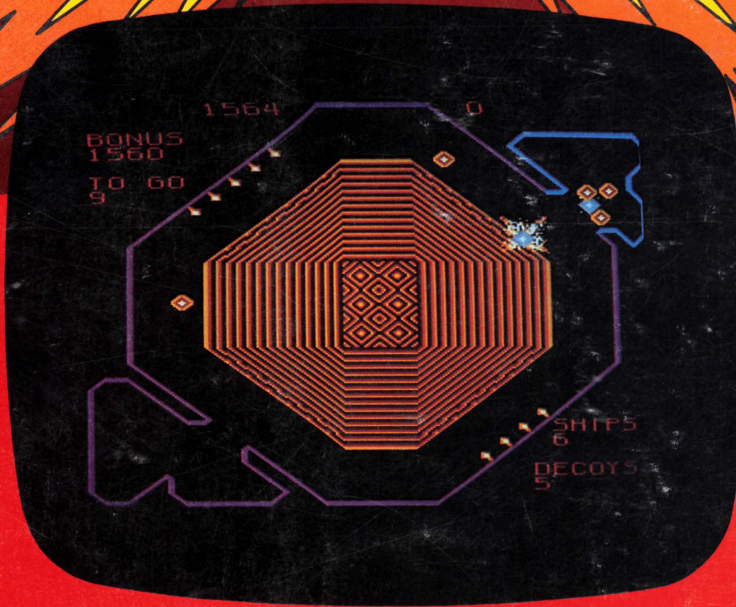
Also, given the recent alignment of the motion picture industry with coin-op amusements, perhaps what we need is a manufacturer to theme a video game—with all due royalties proceeding to Disney Productions, of course—on the Sorcerer's apprentice theme. Such a game could probably help drive home the point that anything that can incorporate Mickey Mouse can't be all bad.

While a Mickey Mouse video game might be a little unrealistic, it is realistic for operators, distributors, and manufacturers to point out parallels between video games and other mediums. There's probably no better way that this industry can show it is essential to modern society, that it serves a purpose, and must be allowed to flourish.

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