

The Twice Monthly Publication
for the Coin Operated Entertainment Industry

PLAY METER

Volume 7, Number 20

November 1, 1981

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LOCATION CONTRACTS: THE BASICS

NEW VIDEO REVIEWS



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9

The Attack on Coin-Op Games

The almost mythological fear of amusement devices continues today in the government sector. In our lead article on the subject, Roger Sharpe analyzes the rampant confusion. A related article by Managing Editor Ray Tilley gives some guidance on using the press to favorable advantage. Other articles in this issue also relate to the problems of repressive legislation and how a better image can be attained by operators.

14

Location Contracts for the Industry

Walt Bohrer looks at the operator's need for a contractual agreement with his locations. From the basics of what should be included, what makes a contract legal, and why you may need one, Bohrer goes on to explain what the contract *doesn't* do. To be concluded in *Play Meter*, December 1 issue.

46

Viewpoint on Video

Returning to these pages are video review columns, by popular request. We begin again with this pair of reviewers—analyzing new games from the distinct perspective of the player. Messers. Robert Rosenhouse and Robert Karp make their *Play Meter* debut.

COVER CREDIT: Fireworks over Itasca, Illinois symbolize the friction generated for the coin industry by local politicians, as reported in this issue. The real occasion of the sparklers on the cover, however, was the recent gala meeting at Itasca for Bally distributors, on Bally's 50th anniversary. Photo courtesy of Bally.

DEPARTMENTS

- 4 Up Front
- 7 Mailbox
- 8 The Idea Bank
- 13 News
- 19 Equipment Poll
- 36 The Arcade School
- 40 Frank's Cranks
- 42 Music Programming
- 48 Critic's Corner
- 51 New Products
- 55 Classified Advertising
- 62 News Briefs

UP FRONT

We are extremely pleased with the response throughout the country to our third annual AMUSEMENT OPERATORS EXPO, to be held on March 26-28, 1982, at the Hyatt Regency in Chicago. All indications point to this upcoming 1982 show as the biggest and most successful in its short three-year history. The main reason for this growing excitement is the phenomenal interest shown by both attendees and exhibitors. The Exhibit Hall will definitely be a sell-out, with 100 exhibitors having reserved over 160 booths by August, 1981, and more coming in each month...Potential participants have also responded in great numbers. A preliminary mailing announcing the show, brought in a deluge of requests for additional information. All indicators point to the coming of age for AMUSEMENT OPERATORS EXPO '82.

Although we expect many more booths in the Exhibit Hall, major pinball, video, and coin-operated manufacturers have already signed up, as have manufacturers of billiard tables, parts, and supplies. These companies are aware of the evolution of AMUSEMENT OPERATORS EXPO into a viable marketplace for their products, their services, and their equipment.

The move from New Orleans to Chicago is another reason for the strong response to AOE '82. Chicago offers a more concentrated marketplace of manufacturers, suppliers, and distributors, and attendance figures are expected to swell as a result of the show's relocation to this important center for the amusement business.

An extremely powerful promotion effort, now underway to sell AOE '82, is another factor contributing to the growing awareness of the importance of the show. Direct mail using highly developed attendee lists, advertising, brochures, press releases, editorials, and special complimentary exhibitor tickets are just part of the massive campaign to make this show the best the industry has to offer.

Play Meter Magazine feels that its sponsorship of AOE '82 is a natural extension of its continued dedication to improving the industry and to the introduction of new products and services to the amusement community.



Ralph C. Lally II
Editor and Publisher

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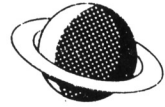
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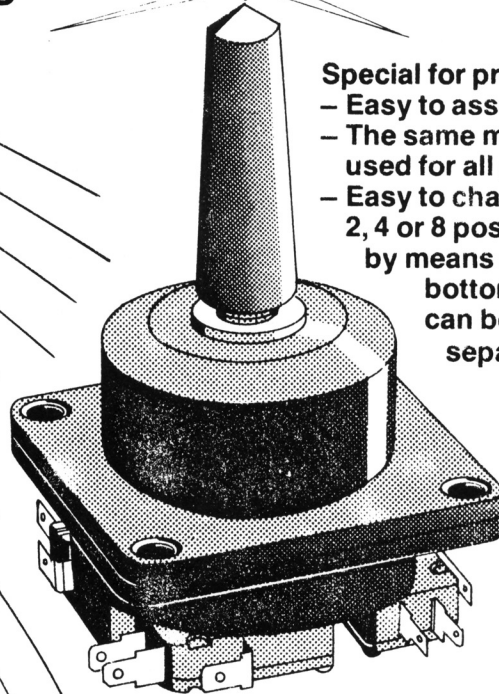
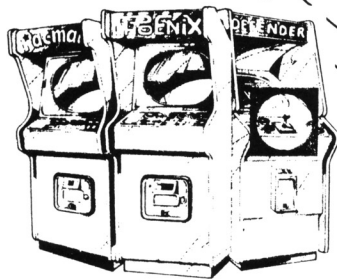
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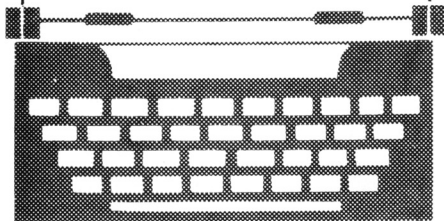
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Letters to the editor . . .



Wants program

I would like to set my operating business up with a computer, but I need a computer program to do it.

Could you please give me the name and address of the company that sells computer programs for the vending trade. Thank you.

Thomas Gallagher
East Brunswick, New Jersey

[Ed. Note: Firms of which we have knowledge of having computer programs specifically for the coin-op trade are:

CAME Software Inc., Suite D-6, 5200 W. Newberry Road, Gainesville, FL 32607; 904/375-8580; Innovative Management Consultants, 2040 Lisa Lane, Fayetteville, AR 72701; 512/428-7370; and Validata, P.O. Box 4719, Montgomery, AL 36104; 205/834-2324.

Operator gives tip

The effects of players kicking the base of a video games are all-too-familiar to operators: a scuffed, less attractive piece of equipment than the shiny, bright machine when it was new.

From one reader comes his solution to combat those scuffs to the machine: A strip of plexiglass about 18 inches high is cut to cover the base of the machine where kids tend to kick. Attached with about eight wood screws, the cover keeps the cabinet paint and graphics visible and new-looking—while the game is getting heavy and enthusiastic play. Also suggested is mylar to cover the area where hands rest on the play

surface.

(A tip from: *Joe Campofelice, Electronic Games & Hobbies, Ft. Washington, Maryland.*)

Off the top

It's time if you haven't already, to start taking \$10 or \$15 off the top of every machine collection per week (to compensate for gas, license, parts, and your time) or get a better slice of the collection (like 65-35). And the quicker you do this, the longer you're going to last.

Al Gorman
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Test of time

Play Meter has stood the test of time and improved through the years. Professionally written articles continue to grind out your "literary grist mill." We read every issue with a

voracious appetite and put the information to good use.

Keep on keeping on!

Gerald Goudeau
Gerald's Amusement Machines
Lafayette, Louisiana

Something on your mind you want to vent? Got a gripe? Full of praise? Have a question? If you have comments on the coin operated entertainment industry, write to Play Meter. Our "Letters to the Editor" columns are dedicated to you, the operator/reader.

All letters must be signed; if requested, only initials will be used or the name withheld from print. Please include return address (although, for the sake of your privacy, addresses will not be printed.) All letters subject to standard editing. Be concise.

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THE IDEA BANK

Operators: The press is subtle, both for damage and benefit

By Ray E. Tilley

"No rest for the weary," it's often said in coin machine operating. Prices, taxes, politicians, and even the press all combine to rob the operator of precious sleep.

Roger Sharpe will deal with the problem of image building in a related article in *Play Meter*, but the following incidents arose recently, almost in *Play Meter's* back yard.

One of the dozens of operators in the New Orleans area could come home on August 11, pick up his evening *Times Picayune/States Item*...and turn a little red around the gills as he read the news article "Pinball Game Controls Asked by Councilman."

It happened in the suburban city of Kenner, where Councilman Nick Baroni felt that tighter controls on operation of the machines were needed, said the newspaper account.

And tighter controls, even could be lived with, right? Possibly, and more about the proposed Kenner, Louisiana regs later. However, the report by the *Times Picayune's* Kenner stringer Susan Finch—who did not, incidentally, quote any operator's views in her 14-inch article—contributed to tarnishing the coin-op image in her third sentence alone. It stated that the Kenner City Council was considering regulation of "pinball and other games of chance." [Emphasis added.]

one time" (isn't two or four the usual limit?); regulating the number of machines according to the size of the building in which they are located; and putting a curfew on the games' operation. (The city already has an 11 p.m. curfew for those persons under 17, and it was created as a result of congregating by teens at bar and music hall locations at late night.)

In Kenner, arcades must have City Council permission to open for trade and must operate during certain hours and with adult supervision. Even with these restrictions, including prohibition of children under 13, Councilman Baroni contended that the council has been reluctant to approve applications for amusement centers "because of opposition from the public," according to the *Times-Picayune*.

The debate continues.

Seek favorable news coverage

It bears stressing that the coin machine operator can obtain favorable news coverage of the games. Attention getters include but are not limited to high-score marathons, T-shirts, and other goods giveaways, "bargain" pricing through tokens, and the set-up of tournaments.

Once the publicity campaign is decided on, it is up to the operator not to hide its light under a bushel. In other words, publicize, publicize.

"...To regulate pinball and other games of chance..." —New Orleans newspaper report

Games of chance happen to be illegal in Louisiana, with the exception of bingo and horse racing—but no coin-op games of chance, by definition, under state law.

The report goes on to cite parents' objections to teenagers spending their money on the games and merchants' complaints that "children loiter about the machines, litter, use foul language, and get in the way of customers." And Councilman Baroni, while saying that he has no personal objection to the electronic games, commented: "If we'd ever put all these machines in one place, we could probably fill up the Superdome."

The councilman called for controls on the games, including: "limitation of the number of people who can play the machines at any

And in seeking favorable media publicity, he will contact the editors of the daily or weekly newspapers in his area and the news directors of TV/radio stations. Those persons, it must be noted, are kept quite busy with their positions (contrary to the image projected by the comic strip "Shoe" and its lazy editors). Those editors see perhaps dozens of notices of special upcoming events each day, and maybe three out of four such notices go straight to the wastebasket as having little or no general interest or "news value."

Videos and pingames are obviously creating quite a bit of general interest currently, and the media are dealing with the games as news subject matter (as discussed in *Play Meter*, December 15, 1980, page 68, "The Press Is Looking at Coin-Ops"). The news editor or director is going to be

[continued on page 10]

ANALYSIS:

The attack on coin-op games goes on

By Roger C. Sharpe

The Times-Picayune

Pinball game controls asked by councilman



Kenner Report

By SUSAN FINCH
East Jefferson bureau

Seldom do Kenner city fathers do anything that would rivet the attention of adolescents.

But last week, at the urging of one councilman, the City Council made an exception.

The subject was something dear to the hearts of many teen-agers — pinball machines and other games of chance.

Councilman Nick Baroni said tighter controls on the operation of the

Amusement centers, which youngsters 13 and up are allowed to frequent, must have City Council permission to open and must operate during certain hours and with adult supervision.

Baroni said the council has been reluctant to approve applications for amusement centers because of opposition from the public.

But he said that as a parent, he might find such places preferable to what he called the "satellite amusement centers" that have cropped up all over Kenner.

"IF WE'D EVER put all these machines in one place, we could probably fill up the Superdome," Baroni said.

Baroni said he is not against electronic games. In fact, he likes to play them, he said.

"I have no objections at all to the machines, but I do have an objection to

New Orleans newspaper covered the attack on pinballs—which this report called 'games of chance'—but didn't tell operators' side. See related story, this issue.

What has always seemed incredible to me is that people in the outside world continually search for a whipping boy in the coin machine industry. Something to attack in the hopes of god only knows what, but probably in an attempt to ban games.

Back in the Thirties, pay-out games received the self-serving righteous scorn of a public looking for some cause to support in the hopes of protecting Mom and Apple Pie. Pinball games soon, too, fell victim more so out of guilt by association rather than for anything more substantial.

The outbreak of the War tended to put the brunt of the crusade on hold, but when it ended, the one thing that remained constant was the fact that old values and beliefs were still held as firmly as before.

This onslaught continued when the industry started up again in the late Forties and added one-ball uprights to their repertoire and soon followed this with the addition of bingo machines. Needless to say, there wasn't much improvement in the image of the coin-machine industry, nor did the people involved with the equipment, or any level, try to do anything more than just survive and hope that things would blow over.

The same attitude prevailed until the business went through a sort of revolution and public awareness, helped along by the easing of restrictions in Los Angeles in 1972 and then New York and Chicago only a few years later. Pinball, in fact, attained a status and popularity that made it almost chic and at the same time video began to capture its own audience and following.

Then things changed as pinball adapted more slowly to the technological changes and video continued to expand its research

[continued on page 11]

[continued from page 8]

thinking about coin games when he gets an announcement of your own publicity campaign attempt. But why should he send a reporter and/or camera crew to your amusement center instead of some other?

One model for grabbing the editor's attention was provided by Malibu Grand Prix, which held a citywide video tournament in Houston during most of August. Its publicity consultant, Helen Vollmer/Public Relations sent out a "feeler" to area media directors, signed by the firm's Debbie L. Ward, and excerpted below.

Decide whether this would command your attention if you had been reading announcements of similar events all morning at the city desk:

"Dear Sir/Madam:

"Are you one of those folks who has stolen out of the house at an ungodly hour and headed for a game arcade to play *Space Invaders*? Or maybe your favorite is *Asteroids*? At the very least, you probably know someone who hoards quarters just so he or she can play one of the many video games that have become popular over the last few years.

"Why are so many people obsessed with playing those electronic games? And is there more to playing them than just pushing buttons? These questions can be answered during the upcoming citywide video game tournament sponsored by Malibu Grand Prix August 8 through August 29.

August 15, and a *Celebrity Challenge* August 20, with proceeds going to Hermann Hospital's Life Flight Program.

"As you can see, there are many visual opportunities here, and since interest is so high in electronic video games now, we feel your readers would enjoy such a feature.

"There are many visual opportunities here (in a Houston coin-op tournament), and we feel your readers would enjoy a news feature." —PR release

"During this three-week period, Houston will be under *Armor Attack*," the electronic game to be played by contestants vying for over \$2,500 in cash and prizes. The U.S. Army is even getting in the spirit of things by supplying a jeep, a helicopter and a tank (elements in the game) at Malibu Grand Prix's West Loop North on the day of the final round of the tournament, August 29.

"In addition to the tournament itself, there will be several activities that might work for you as story ideas. Malibu will hold a Family Day August 9, a 'Boot Camp' clinic

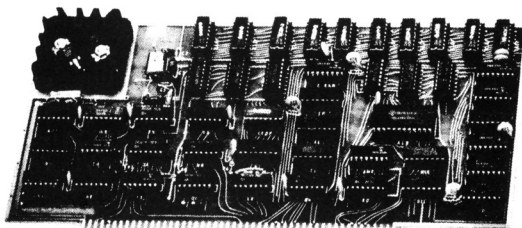
"We'll be back with you in a few days to see if you're interested. Thanks for your time."

"Sincerely,
"Deborah L. Ward"

The operator, whether or not he chooses to go to a media consultant such as the firm which produced the above, can find ways to make his own promotion seem "unique." In doing so, he can reach the news media with a letter and a following personal contact and thereby generate publicity that reflects well on his concern and the image of the industry as a whole. ●

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[continued from page 9]

and development. Unless one has been on another planet the past couple of years, it doesn't take much to see how much the tables have turned regarding pinball and video. The former is striving to regain its prominence in the industry, while the latter continues to command the attention and efforts of almost every major coin-machine producer.

But with the territory comes much of the same reaction pinball has had to suffer with most of its existence and, not surprisingly, nothing is really being done to combat the growing number of critics who are turning their crusade against the video machine.

The problems with this change of attention are numerous especially given the relative impunity video has enjoyed since its inception. But things do change and so a new threat is beginning to rear its ugly head.

Ailments real and imagined

The public has been hit with such news as players of video games are now suffering from a variety of ailments—video elbow and problems associated with the muscles in the hand. You may laugh at this, but if we're dealing with a youngster and his concerned parents, the problem becomes that much more serious.

Other developments are also popping up with far greater frequency such as the news stories I received regarding Irvington, New York which proved to be more positive than negative:

"Trustees of this village voted unanimously last night to soften a proposed ordinance on the restriction of video games. They voted to permit a maximum of three of the machines such as *Space Invaders*, instead of two, in any one commercial establishment.

In addition, they deleted from the proposal a provision that would have banned the use of the 25-cent machines to those under the age of 17. They continued consideration of a proposed \$100 annual licensing fee for each machine."

Another situation, far less positive, regards a story that appeared in no less than four different papers detailing the events of a Florida location in Coral Springs mall.

"Police said the Game Room, with its dozens of electronic

video machines, is the headquarters of a rowdy, loosely knit group of youths called the Warriors"

What was brought out, besides the fact that the location was inadequately managed, was that drugs were also being sold and used in the game room and that it should be closed down, while a further study should be taken regarding similar locations in the area. Interestingly, the single point that should be taken is that the Game Room was characterized as only having video games, when in fact they also have pinball machines. But video is in the public consciousness and so it is the central category gaining the positive as well as negative reactions.

I'm troubled, because as past efforts have shown, these things can get out of hand sooner than anyone can realize unless something is done to combat what might turn into a growing trend. Video isn't immune to the backlash just because it is felt to be "respectable," and that's the problem. Most of the manufacturers of these games are relatively new to the industry and don't know just how dirty the fighting can get. Hopefully, they'll wake up before it's too late.

On another front, Atari has begun plans for an enormous undertaking this fall with both commercial and home computer video games in the form of tournaments that are scheduled to culminate during the AMOA in Chicago. So the beat goes on and on, through tick and thin, although for now video is enjoying such great popularity most are probably not concerned that the roof might just cave in.

Again, I can't express how important it is for either video or pinball to take a more positive and public stance against those who would see it torn down. There needs to be some governing body to regulate individual locations so episodes like the ones in Florida can be minimized and the misconceptions of those outside the industry can, at last, be put to rest forever, regarding the coin machine and the public's innate distrust of any industry that's based on a cash system from manufacturer right through the channel to the player.

Maybe the time has now come to take action. I'd like to think so, but given the nature of the business it will take the operators to gather together to get any results whatsoever in order to protect their livelihoods. ●

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'Our own popularity has hung us...' —California operator

Restrictions tighten on arcades in Los Angeles area

Southern California cities at late summer 1981 were weighing the passage of ordinances with increasingly complex and restrictive regulations on amusement game arcades. Municipalities including those in Los Angeles and Orange counties adopted measures such as that of the city of Los Angeles, classifying a location with five or more game machines as an arcade and requiring conditional-use permits from a zoning authority.

Why arcades? And why now? That seemed to be answerable by the growing popularity of electronic amusements—which were being resisted by parents who argued that the machines eat up all their children's spare quarters. City officials linked congregating kids with the undesired effects of crowd noise, drug and alcohol abuse, and the general nuisance of "hoods."

Not unlike other localities, the Los Angeles City Council in its proposed zoning ordinance had lumped together the game arcades with massage parlors, bathhouses, dance halls, and sexual encounter establishments. When coin operators and machine distributors objected, the council in August

adopted two ordinances—one to cover arcades, the second for the other establishments.

Among the cities deciding recently to tighten restrictions on game machine arcades was Anaheim, California. The tighten-up came after game license applications began coming in "fast and furious," Councilwoman Miriam Kaywood was quoted in the *Los Angeles Times*.

That flurry of new games rooms had irritated citizens who were "irrational," she said, in their being "fearful of groups of young people."

Anaheim's city planning staff then studied similar-sized cities in its area and found Anaheim was "just about the most lenient" toward arcades. Some, such as Burbank and Glendale, had declared moratoriums to temporarily prohibit new openings until ordinances could be passed to regulate them.

The Anaheim council opted instead to require a survey of all residents and businesses within a 300-foot radius of any proposed game room with more than four machines. If less than half the respondents opposed the arcade, it could be licensed after a routine

police check, as was done before. If more than half the nearby citizens and businesses did oppose the game room, the license would be denied, with the applicant able to appeal this to council.

The city council unanimously agreed on this approach, with Mayor John Seymour quoted as saying he is concerned about increasing government regulations—but the game room situation as seen by citizens and officials seemed to demand action, he said.

Why the city should be any less "lenient" than in the past was perhaps summarized best by Councilwoman Kaywood, who told a reporter that well-managed establishments are "a nice plus" for the city; the biggest problem she saw was with poorly managed units in small, neighborhood shopping centers.

In Los Angeles—where former Governor Edmund G. "Pat" Brown as well as operators in the coin industry had attempted to gain a delay—the city council voted for a \$1,500 fee and a three-to-four months waiting period before arcade owners can begin operating proposed arcades.

One Los Angeles councilman was quoted as describing the city ordinance as "just catching up with everybody else."

Arcade applicants will have to pay a non-refundable \$900 fee for a conditional-use permit and about \$250 additionally for an "environmental review." Notices are also sent to residents within 300 feet of the proposed arcade (as in the Anaheim procedure) for a zoning hearing to follow for the arcade.

An industry representative had argued before council that it would cost "valuable city resources" for the zoning hearing procedure, rather than a standard police check.

Heard louder, apparently, were community spokesmen from westside Los Angeles, who contended that arcades draw "juveniles who drink, smoke, and wreak havoc on nearby business."

—by Ray E. Tilley

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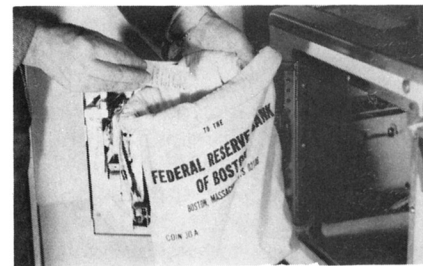
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The Role of the Contract in the Coin Machine Industry Today

By Walter Bohrer

From the WISCONSIN MUSIC MERCHANTS ASSOCIATION Newsletter, reprinted with permission.

The very word “contract” has for many of us an almost ominous sound. Why is that? Why does that particular word provoke a “fear” or at least a “caution” reaction in people? Perhaps the phenomenon is a result of having watched too many TV gangster dramas and thus developing a negative association between that very frightening connotation and a truly harmless phrase.

That rationale is, however, simplistic and does not accurately reflect the facts. As a matter of fact, the true nature of the term’s definition is protective, not harmful. The contract has, and continues, to play a meaningful role in all of our daily, personal and business lives.

The fear just mentioned is, I suspect, caused primarily by just simply not knowing enough about, or being able to understand and appreciate, just what a contract is and does.

Moreover, and infinitely more important though, it is my aim to show you how crucial the contract will be for successful operating in the 80’s.

History

Many believe that the contract was necessitated by a declining morality and sense of ethics that we feel is a part of today’s world. The conception goes further to include the notion that in simpler, slower, and more honorable times, the contract has no need to exist—that the handshake and a man’s word served in its place.

Certainly in our early agrarian years, a great deal of business was conducted in just that fashion. Indeed yet today, a tremendous amount of business is so structured...

However, to retain this image denies the contract its true historical role in civilized society.

The early 1900’s saw the development of business “form” contracts. Concurrently with the development of form contracting, the Industrial Revolution was changing the entire nature and institutional structure of our economy. New developing theories of “imperfect” and “monopolistic” competition began to challenge the prevailing laissez-faire, hands-off philosophy, as a basis for public policy in a modern industrial-urban society. The courts began to be persuaded that inequalities in bargaining power had developed which justified their intervention in various economic relationships, including contracting. Additionally, many important relationships between contracting parties began to be substantially or fully controlled by legislation.

Today the courts may refuse to enforce, or even rewrite terms in contracts, if this is deemed necessary, to protect the real or presumed victims of one-sided or unfair contracts.

Therefore it will be beneficial at this point to discuss the do’s and don’ts of contracts.

Fundamental elements of a contract

1. Necessity or desirability of a written contract.

A written contract is not ordinarily a legal necessity except in case of real estate transactions and documents evidencing indebtedness such as bills and notes. The contract itself is the agreement between the parties. The written document is the evidence of that agreement. A contract can be oral or written or it can be the result of the actions of parties which fulfill the requirements of a contract.

While it is not necessary to have a contract in writing, it is almost always desirable that you do so because only by writing can you evidence the terms and conditions under which the parties have agreed to be bound.

2. Formal Language

Courts have held that there is no formal language required in a normal business contract, but it should specify the obligations of the parties in as much detail as the parties feel is necessary to evidence their agreement. In the case of a contract for placing a jukebox or an amusement game, some of the items that should be in such a contract that come to mind are as follows:

(A) Is there a definite period of time involved or is it indefinite? In either case, it should so state with a termination clause in the case of an indefinite contract.

(B) What is to be paid, to whom is it to be paid, and when is it to be paid?

(C) What are the obligations of the parties with respect to maintenance?

(D) What are the obligations of the parties with respect to licenses and permits?

(E) Who should be notified on either side in the case of the need for service?

(F) If you are dealing with a corporation, do the parties who actually sign the contract have authority to sign and bind their respective companies? If there is any question as to the person’s right to sign on behalf of a corporation, you might wish to include a phrase representing that the signer has the authority to so sign.

(G) Damages for a breach must also be spelled out.

3. Signing.

The contract should be signed by both parties. If they are individuals, they can use their normal signature, although signatures aren’t even legally required. Any mark or indication that a party normally uses to evidence his intent to be bound is sufficient, but you can’t have a valid contract unless both parties evidence their intent to

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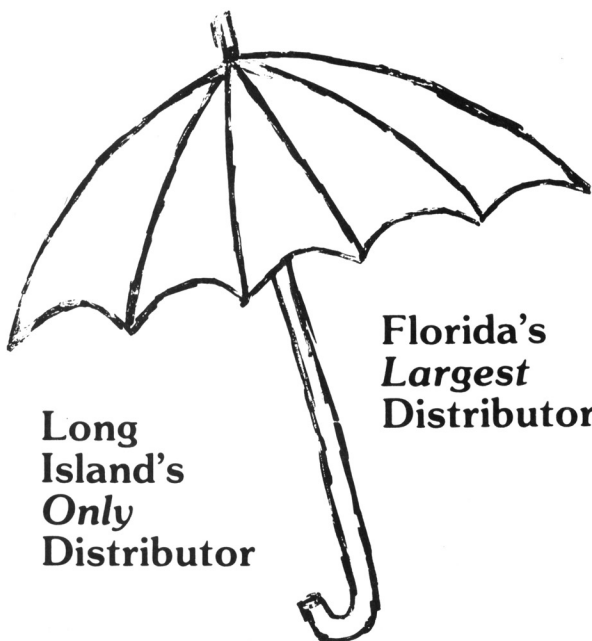
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be bound by affixing their signature or other mark.

4. *Date.*

Normally contracts are dated and the place where they are executed is also indicated. So a contract would normally say "Dated at Milwaukee, Wisconsin, this — day of May 1981." The date doesn't ordinarily indicate when the activity under a contract is to start, but it does indicate the date and place at which the contract became effective between the parties. Contracts without dates are difficult to enforce.

5. *Seal*

There is a great deal of confusion about a seal on a contract. It is not ordinarily required, unless the law requires it, and in the kind of contracts that you will be involved in, no seal is required.

With the coin-op machines, the two parties' consideration is that the machine's owner agrees to place his machine and to share the profits— and that the owner of the premises in turn agrees to allow the machine to be placed.

6. *Delivery and acceptance.*

Contracts normally do not become effective until they are delivered— this is really another way of saying "accepted" but it goes beyond the mere signing of a document. A contract is delivered when a copy is sent to, or given to, both sides to the agreement and, even though a contract is signed, it technically is not enforceable unless you can prove delivery.

Normally this is no problem because a contract is usually written in duplicate and one copy is given to one party and one copy is given to the other and this, in almost all cases, constitutes and formalizes delivery.

7. *Witness or other attestation.*

There are statutes which require the attestation or authentication of certain types of contract, such as contracts which are going to be placed on file with some recording agency such as the Register of Deeds. (Wisconsin law has eliminated the requirement for witnesses in such documents and at common law, witnesses were not normally required in a business contract. This is not to say, however, that witnesses are not desirable and, if it is at all possible to have someone witness the signatures of the parties, that is to be preferred over having no witnesses at all. In the event that one of the parties dies or becomes unavailable to testify such as in the case of mental illness, than an independent third party can testify to the fact that he observed the signature being affixed to the document, and this could become important in establishing the fact of contract.)

It is not necessary that a contract be sworn to or acknowledged or authenticated in the normal business contract.

8. *Consideration.*

No contract is a valid contract unless each of the parties receives something of value by reason of the contract. For example, the purchase of an automobile is supported by consideration on the part of the buyer getting the automobile and on the part of the seller by receiving the amount of money for the sale. Both sides realized a valuable consideration or benefit from entering into such a contract.

The consideration does not have to be in the form of money on one side or the other. It can be in the form of promise on the part of one party or the other to do

something which will result in a value or consideration to the other party.

In the case of the rental machines, that consideration is invariably present because the machine's owner agrees to place his machine and to share the profits with the owner of the premises— and the owner of the premises in turn agrees to allow the machine to be placed on his premises and to furnish the electricity, heat, and light so that the machine will be properly used or displayed.

9. *When in doubt about a contract, the parties should always seek legal advice.*

The small amount of money that is paid to a lawyer for a legal opinion could save hundreds or thousands of dollars at a later date and it is better to be safe than sorry even if it costs you a few dollars to be safe. Operators associations such as WMMA have retained legal counsel to advise them generally on various matters and members are also authorized to call them for free advice if they have questions of a general nature which does not require the issuance of a formal legal opinion.

The ethics of the document

It is fundamental that both parties clearly understand the terms of the contract. Specifically and candidly, discuss and explain each item in your contract with the location owner.

This agreement should not be looked on as a device that will force either party to do anything that they don't fully want to. Don't begin seeing the contract as a tool that will give you leverage over or put a "lock" on a location. It doesn't and shouldn't provide you with that power.

Your contract is merely an equitable agreement between the location and yourself that contains the terms of a business arrangement that will benefit both parties.

It is a written document that assigns those benefits and defines your bilateral responsibilities. It is a commitment between you both that affords you both certain mutually beneficial protections.

Be alerted to the blue suede shoe boys

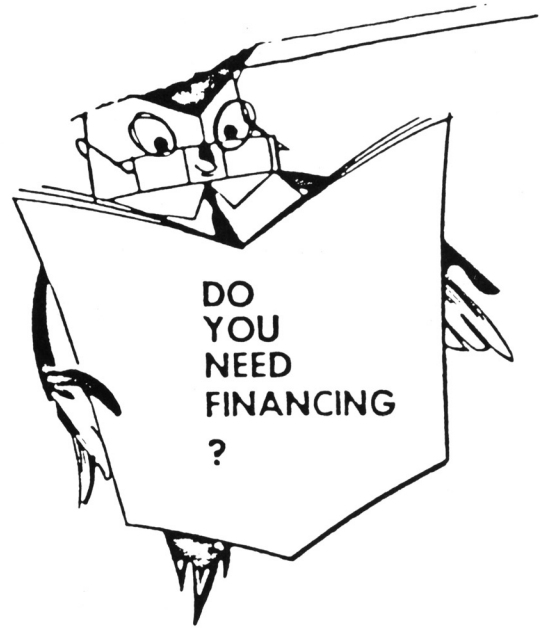
Warn your customers to be alerted to the fast talking salesman who uses small print and gives big promises.

Don't look on the contract as a tool that will give you a "lock" on a location. It doesn't and shouldn't provide you with that power.

Individuals of that nature, working with* intentionally deceptive and misleading contracts, can severely tarnish operators' and the industry's image.

This kind of activity has no place in our business. Legitimate, ethical coin operators have a duty, and should make a concerted effort, to bring the activities of such unscrupulous persons to the attention of the proper authority.

At the same time, you should advise locations having encountered these types of sales, or worse yet been taken in by them, when the state Attorney General's Office has a special branch for consumer protection capable of addressing their problem. Location owners should feel free to call them to report any such irregularities.



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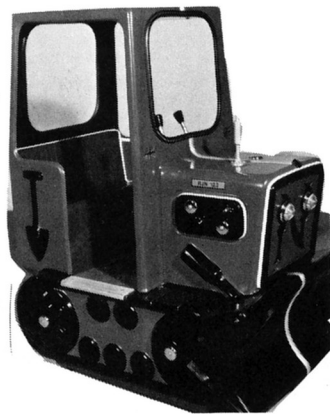
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Williams Electronics, Inc. has opened a 60,000 square foot facility in Gurnee, Illinois for the production of its video line. The Gurnee plant which opened in July has a maximum production capacity that more than doubles that of Williams' former video plant in Chicago. The modern facility has three separate assembly lines for maximum flexibility that also houses sub-assembly production lines and complete in-coming, in-process, and final inspection for the highest quality product possible. "The increased manufacturing capability and efficiency factor of our new plant will allow us to meet the growing demand of our customers for our expanding video product line as well as the continuing demand for our very successful entry in the video market, Defender," said Michael Stroll, president of Williams.



Infringement Policy

To meet the demands of the marketplace for new and exciting electronic games, Williams creates innovative games with strong play appeal and exclusive features. Williams' research & development, design talent and engineering skill combine their expertise to continuously insure a high standard for the industry.

To protect the rights of original works, United States codes provide for registration of copyrights and trademarks. Williams fully intends to protect its proprietary rights under these regulations and will take all legal action necessary against anyone engaging in the manufacture, assembly, distribution, sale or operation of infringing games.

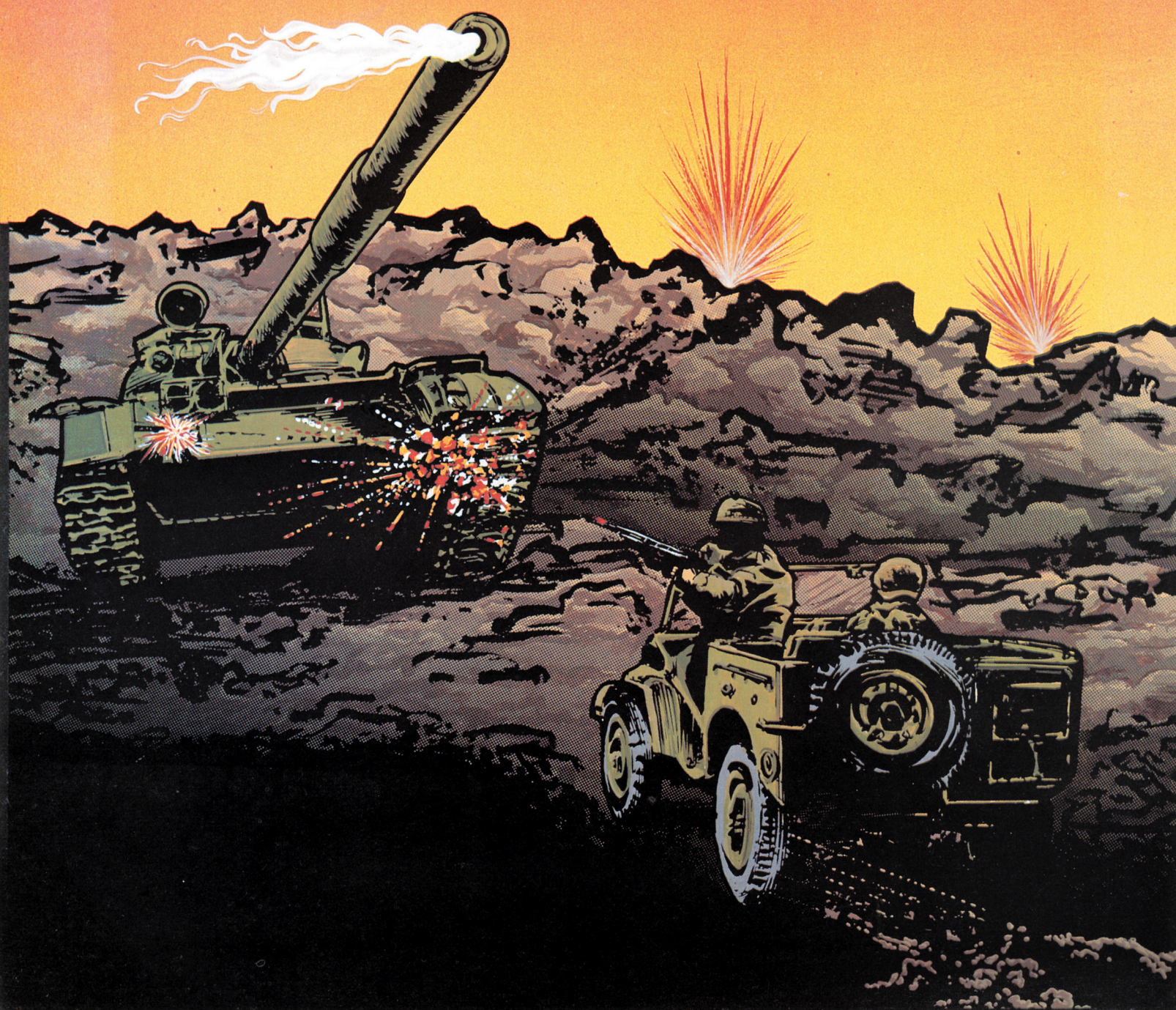
To date, Williams has received orders from United States District Courts in Portland, Newark, Alabama and Los Angeles prohibiting the further sale of infringing games. Williams' rights have also been upheld in the foreign marketplace in England, France, Spain, Germany and Italy.

This notice is to serve as fair warning that Williams intends to seek prosecution against any person or company violating its exclusive proprietary rights in DEFENDER™ and in other games that follow.

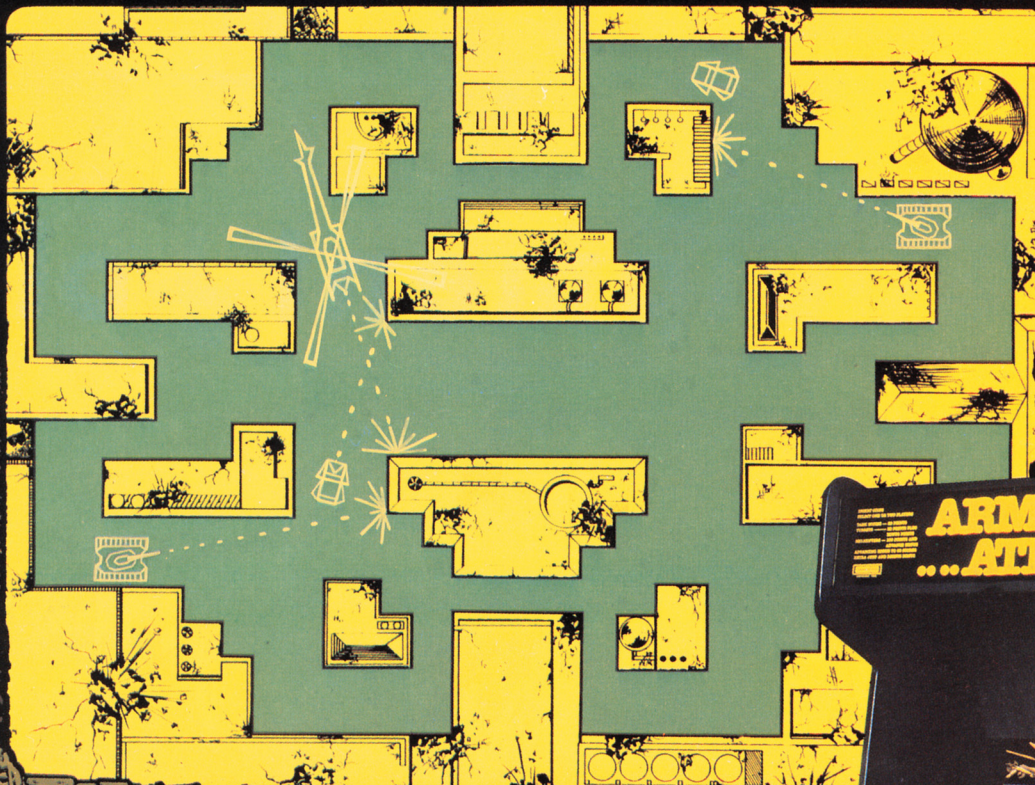
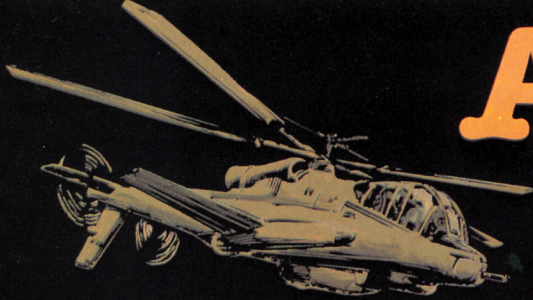
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PlayMeter

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, including both arcade and street locations. 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. **Special note should be made that these earnings figures are gross revenues. When computing operator revenues, these amounts should be reduced by fifty percent to reflect the most widespread industry practice, that of granting fifty percent commissions to the location owners.**

TOP PINBALLS

Eleven of 17 pinballs (65%) with a response rate over ten percent have above average earnings.

	Sept. 9	Sept. 22
National average for pinballs\$117	\$113
★ 1. EIGHT-BALL DELUXE/Bally	\$148	\$143
★ 2. LIGHTNING/Stern	—	\$124
★ 3. MARS/Gottlieb	\$134	\$123
★ 4. PHARAOH/Williams	\$137	\$118
★ 5. JUNGLE LORD/Williams	—	\$117
6. BLACK KNIGHT/Williams	\$131	\$114

TOP VIDEOS

Twenty of 30 videos (67%) with a response rate over ten percent have above average earnings.

	Sept. 9	Sept. 22
National average for videos\$193	\$186
1. DEFENDER/Williams	\$267	\$265
2. CENTIPEDE/Atari	\$243	\$259
★ 3. OMEGA RACE/Midway	\$270	\$242
★ 4. SUPER COBRA/Stern	\$235	\$236
5. PAC-MAN/Midway	\$245	\$234
★ 6. WIZARD OF WOR/Midway	\$212	\$211
7. SCRAMBLE/Stern	\$208	\$200
8. GORF/Midway	\$211	\$198
9. PHOENIX/Centuri	\$203	\$196
10. ASTEROIDS/Atari	\$209	\$195
★ 11. PLEAIDES/Centuri	\$217	\$191
★ 12. ARMOR ATTACK/ Cinematronics	—	\$190

★ 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%)

PINBALLS

Provisional Ratings	Sept. 9	Sept. 22
FATHOM/Bally	—	\$164
SPLIT SECOND/Stern	—	\$158
MEDUSA/Bally	\$122	\$150
FREEFALL/Stern	—	\$130
EMBRYON/Bally	\$143	\$123

VIDEOS

Provisional Ratings	Sept. 9	Sept. 22
DONKEY KONG/Nintendo	—	\$288
VANGUARD/Centuri	—	\$250
SPACE FURY/Gremlin	\$250	\$224
RED BARON/Atari	—	\$209
ASTRO BLASTER/Gremlin	—	\$209
SPACE ODYSSEY/Gremlin	\$194	\$200
VENTURE/Exidy	\$256	\$196
BERZERK/Stern	—	\$192

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.

ADMA will 'watchdog' Washington activity



ADMA in agenda-setting conference: plans made.

The Amusement Device Manufacturers Association will retain a full-time lobbyist and a Washington, D.C. public relations firm to, on one

hand, watchdog "anything, favorable or otherwise, that may be developing in Congress or in any other branch of the government," and further, to

direct efforts for informing public and private groups about the coin industry.

These moves were among the items decided in a general membership meeting of ADMA at the Marriott O'Hare Hotel, Chicago, on August 25. Joe Robbins, president; Bob Bloom of D. Gottlieb & Co., treasurer; and Paul Huebsch, ADMA executive director, presided.

"The young organization, just six months in existence, has now adopted a very strong and positive program," said Huebsch. "It will involve four coordinated and closely executed steps. David W. Maher, of the firm of Rueben and Proctor, is general counsel to ADMA and under his direction a very well known and prominent Washington law firm will be retained on a permanent basis. They will be responsible for monitoring and responding to adverse legislation wherever it is presented. They will also lead in

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developing model ordinances to change present restrictive laws and to open up presently closed areas at the local and state levels.

"A full time lobbyist of the highest reputation will also be retained to represent the industry by monitoring legislative action at the national level in Washington. Without being specific at this time, there are many areas in various congressional committees where such a lobbyist can be of enormous help," Huebsch continued.

ADMA will retain a public relations firm to direct a full scale effort in developing documented presentations for use in pursuing legislative proposals and combating adverse legislative actions related to the industry. The firm will produce informative packages for use by lawyers, legislators, public officials and other concerned individuals or groups. And, ADMA will retain a Washington firm whose purpose will be to act as a legislative watchdog.

"Taken cumulatively, this is a powerful program for positive action," commented Huebsch. "It will serve to present this entire industry in a light and manner in which it has never been seen or understood by the general public and especially the legislative and

legal communities."

In these efforts, the Amusement Device Manufacturers Association has announced, it welcomes and will work closely with other coin industry groups including AMOA, IAAPA, and AVMDA.

Other business matters discussed by the ADMA membership were on the favorable report regarding the continuing FCC situation of the classification of video games in relation to the emission of low-level radio interference. A source information report from Atari, Inc. was also circulated to the members, enabling them to facilitate their compliance with Underwriters Laboratories regulations for listing of future games by UL. Atari noted it has received UL listing on *Asteroids Deluxe*.

The FCC and UL matters were cited as examples of two areas where ADMA has "demonstrated its importance with directed leadership resulting in coordinated efforts for the betterment of the industry rather than sporadic, fragmented efforts."

Another example of ADMA's support of the industry was the filing of an amicus curiae brief by ADMA's general counsel in support of Bally and Aladdin's Castle in the Mesquite, Texas case now before

the U.S. Supreme Court. The case involves the city's restriction of juveniles playing arcade games.

Also in attendance at the August 25 meeting were Frank Ballouz and Charles Paul from Atari; Edward Miller from Centuri; Thomas Stroud, Jr. from Cinematronics; Duane Blough and Robert Kupec, from Gremlin; Noah Anglin from Exidy; Donald Rockola from Rock-Ola; Gary Stern, Steve Kaufman, Larry Siegel, and David Schoenberg, from Stern; Paul Moriarity from Taito America; Richard Simon from U.S. Billiards; Mark McClesky from Universal U.S.A.; and Joe Dillon and Ron Crouse from Williams.

Following a working luncheon where a number of pertinent topics were touched upon, each member was presented with a plaque attesting to the fact that they were charter members of ADMA and that they were in total support of furthering the advancement of each segment of the coin operated amusement device industry.

For the final item of business, in response to many inquiries, and in accordance with its by-laws, ADMA resolved to consider for membership any manufacturer of coin operated amusement machines in the United States.



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'From \$5 million a year to \$5 million a month' —Ed Miller

Centuri has 'arrived'

In September of 1980, Centuri, Inc., an upstart firm from Hialeah, a Florida city known for its race track, made some promises. The company, through its President Ed Miller, said it would become a force in the highly competitive video game market.

Eleven months later in Atlantic City, before a group of the industry's leading distributors, Miller issued his "State of the Company" address.

"We have developed a company that licenses and develops high-earning games with longevity, that stand up to the quality criteria necessary in today's competitive environment and with the back-up, support, and services needed by our distributor publics," Miller declared.

"Centuri," said Miller, "has arrived."

The firm, which in its 10-year history had never grossed more than \$6 million in one year, had ended its third quarter with more than \$37.5 million in net sales with remarkable net income of \$5.2 million, he said.

Miller said this was only the beginning. "We are going to continually develop high income, long earning quality games. The only way to do this is to scour the earth to avail ourselves of any and all

concepts that can be proven to be winners," according to Centuri's president.

Miller indicated the firm has made, and will continue to make a major investment in its own research and development laboratories in both Chicago and Florida.

Emphasis: the handlers

Above all, this was a distributor meeting and both Miller and Vice-President of Sales Ivan Rothstein emphasized the importance of Centuri's distributor network.

"When I say that Centuri has gone from \$5 million a year to \$5 million a month, I mean we—Centuri and its distributors," Miller said.

Rothstein stressed the need of the distributor not only to Centuri, but to the industry as a whole.

"In this industry, distributors are necessary," said Rothstein. "It would be a complete disaster if there were no distributors. They do a lot more than just sell new equipment, they are problem solvers as well. They prevent costly breakdowns with their timely repair service. They are a source for disposing of used equipment, and of buying used equipment when you need such items to fill out your demands. They

can arrange long-term financing for large purchases. They can carry on hand, an abundance of spare parts and supplies.

Rothstein continued, "In all, the distributors provide a great deal of support for this industry. We at Centuri plan to support the distributor 100%."

Centuri billed the Atlantic City gathering as its first annual "Distributor Marketing Meeting." The firm unveiled its latest video game *Vanguard* and re-introduces the refined version of the Centuri 2001 jukebox which is now being shipped in quantity from the firm's sister facility in New York State.

"*Vanguard* is one of the top earning pieces of equipment in Japan and Europe," Miller said. "Its vivid colors, its playing variations and its unique speech that is both comical and instructional make it a most enjoyable game to play, and we have every reason to believe it will be as well-received in the states and our market as it has been elsewhere." [For play details, see New Products, this issue.]

The new game joins the colorful Centuri line that now includes such popular coin-operated games as *Phoenix* and *Pleiades*.



The Centuri 'family' beam with pride of the refined-version 2001 jukebox.

Williams sues 'Mayday,' defends its *Defender*

Williams Electronics has claimed success in the United States and elsewhere in protecting its proprietary rights of the *Defender* video game. Games, known as "Defense," "Defense Command," "Avenger," among others, have been shown to infringe the copyrights of Williams' *Defender* game.

The company said these games have infringed Williams' copyrighted audio/visual effects and copyrighted software programs and that, in most cases, the infringing games were virtually identical to Williams' *Defender* game.

Williams said it learned that a video game called *Mayday* was being imported into the United States from Japan, in kit form as well as completed games. Williams reportedly obtained a *Mayday* game and after a detailed investigation of the game concluded that the play of the *Mayday* game, has substantial similarities and identities to Williams' *Defender*.

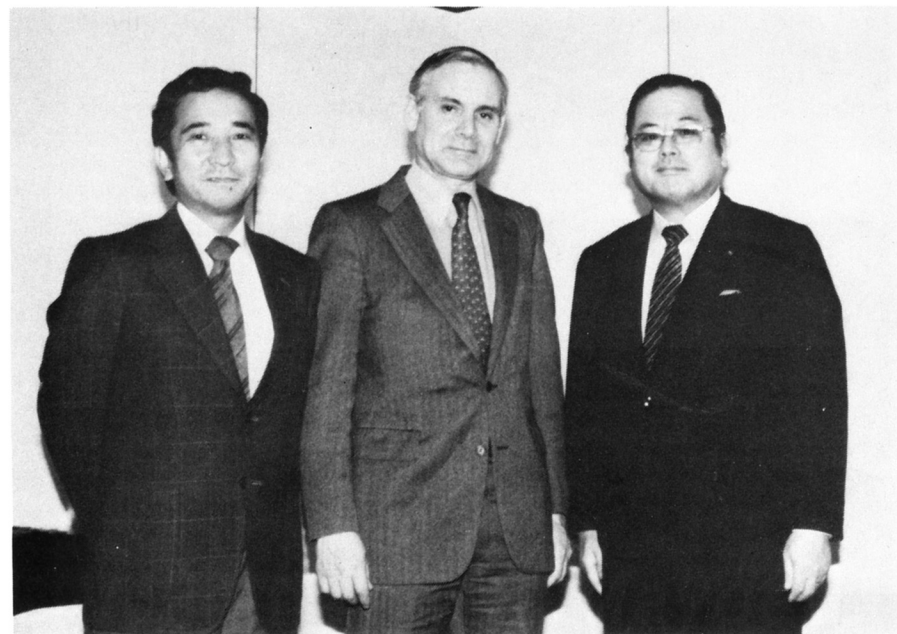
It was Williams' opinion that *Mayday* games infringe its copy-

righted audio/visual effects and infringes its copyrighted software program. Williams expected to "take whatever legal action is necessary to prevent the importation, sale, distribution or operation of *Mayday* games," an announcement said.

To that end, a lawsuit was filed in the United States District Court in Los Angeles against Sutra Import Corporation which has imported some quantity of *Mayday* games from Japan. In addition, further civil actions were in preparation against other known importers of *Mayday*.

Williams Electronics was also preparing to request that the United States Customs Service deny entry into the country of any infringing games or kits and to seek re-delivery orders on any *Mayday* games that have already entered the country.

Those parties that are importing, assembling, distributing, or operating *Mayday* may be subject to civil action which may result in substantial damages, as well as confiscation of all infringing goods, Williams pointed out.



On the occasion of a recent agreement by Rock-Ola Manufacturing and Namco Ltd. for close ties in the manufacture and marketing of new video games, principals of the two companies met at Namco's Tokyo headquarters. Pictured above (left to right) are Hideyuki Nakajima, Namco's director in international marketing; Dr. David R. Rockola, Rock-Ola's senior vice president; and Masaya Nakamura, chairman and founder of Namco. The major Japanese video games creator is to supply Rock-Ola with a number of video games products annually for the Chicago firm to manufacture and to distribute in the U.S. and other markets. It was a full cycle reached in one sense: Nakamura in the early post-WW II years handled Rock-Ola jukeboxes as an operator.



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U.S. Army helped out Houstonians under coin-op 'Armored' seige via tournament

Houston's first city-wide video game tournament was to kick off August 8, with competitors of all ages trying to qualify as one of 80 finalists vying for over \$2,500 in cash and prizes at all area Malibu Grand Prix locations. The final round of the tournament began at noon Saturday, August 29, at the Malibu Grand Prix West Loop North location.

Play was set for Cinematronics' *Armor Attack*, and Cinematronics was a co-sponsor of the video contest with Malibu Grand Prix.

For a \$5 entry fee, contestants received a T-shirt, and were able to play three qualifying rounds of *Armor Attack*. The twenty players with the highest scores from each location were moved ahead to the final round. The grand prize was \$1,000 cash; followed by \$500 for second place; \$300 for third place; and \$200 for fourth place.

"As far as we know, there has never been a legitimate tournament for local electronic game enthusiasts, so this will be an opportunity for Houstonians to see why game rooms are so popular. There really is a lot of skill involved in playing games; it's not just a matter of pushing buttons," said Steve Williams, area supervisor for Malibu Grand Prix.

In conjunction with the contest, KLOL-FM offered discounts at local Malibu Grand Prix Game Rooms to members of its "Rock 'n' Roll Army," the station's listener club. Additionally, KLOL personalities were on hand the day of the final round of the competition to give away albums, T-shirts and concert tickets.

Also scheduled was the U.S. Army with a tank, jeep, and helicopter, the three vehicles in the *Armor Attack* game.

Several special events also were held throughout the three-week competition at area Malibu locations. The Steubner Airline Malibu hosted "Dependents' Day," August 9, for families who arrive together receive three free game tokens.

Those Houstonians wanting to improve their video skills were invited to a free "Boot Camp" at the Southwest Freeway location on August 15. Tips for improving game scores were given by expert games players.

Topping off the pre-championship activities was a "U.S.O. Celebrity Challenge." Houston media personalities were scheduled for a mini-tournament August 20, to benefit Hermann Hospital's Life Flight program.



'Boot Camp' for fans interested in improving video skills, was tied-in to *Armor Attack* tourney. Arcade employees explained computer videos, gave free tokens.



Debbie Ward, p.r. coordinator (left), judged media personnel's own *Celebrity Challenge* video tournament, which boosted funds for the charity beneficiary.

AMOA Expo schedule is set: business, technical program on tap

"Vehicle Costs and Cigarette taxes," one of the coin industry seminars scheduled for the 1981 AMOA Expo, is two-part study session with Vincent Storino, member of the AMOA Board of Directors and Seminar Committee, as its host.

The seminar will be presented on Saturday, October 31, 8:30 to 10 a.m. in the Williford Room of the Conrad Hilton Hotel, Chicago show site.

In the first segment, Robert W. Singer, president of B&F Amusements, Inc., Lakewood, New Jersey, will offer a presentation on vehicle costs, including such timely issues as cost-effective fuel, and truck size and type, with respect to route size.

The second part of the seminar, concentrating on cigarette taxes, will feature a panel discussion with Bruce Hatter, national vending manager, R.J. Reynolds Tobacco Company, Winston-Salem, North Carolina; and AMOA board members Alan Bershada and Jack Kerner.

Bershada's presentation will cover inventory control, commission structure and payment to customs, accounting procedure, and machine capacity size for location. Kerner's topics will include security, route control, and vehicles; and Hatter will discuss subsidies and the efforts of cigarette companies to help vendors.

In a question-and-answer session to follow, panelists will field questions related to the break-even point for sales and mutually beneficial business relationships between amusement-game operators and cigarette accounts.

A technical seminar, to be held Friday, October 30, 8:30-10 a.m., in the Lake Michigan Room; is entitled, "Memory Testing Using Signature Analysis." James Sneed, of Kurz-Kasch, Inc., Dayton, Ohio, will deliver a presentation on the use of conventional test equipment, such as logic probes and scopes, to detect catastrophic failures of memory devices (ROMs, RAMs). Sneed will explore signature analysis as an accurate method of detecting subtle failures, single bit errors, access time or bit timing. A discussion on the necessary hardware and software and a demonstration of the use of equipment also will be included.

In addition to these study sessions, the AMOA will sponsor an

operator panel discussion and seminars on arcades and an introduction to computers—all of which will be of interest and value to members of the industry.

The operators' panel session will be Thursday, October 29, 9 a.m. to noon in the Hilton's International Ballroom. The arcades seminar will be Saturday, 8:30 to 10 a.m. in the Waldorf Room, while the computer

discussion is set for Friday, 8:30 to 10 a.m. in the Waldorf Room.

State associations' meeting and discussion will be Wednesday, October 28 in the Hilton's Bel Air Room.

At the conclusion of the AMOA Expo, the banquet and state show featuring Patti Page is set for October 31, 7 p.m. to midnight in the Grand Ballroom.

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Bally Leisure forms in Hong Kong

Bally Manufacturing Corp. of Chicago and Leisure Systems Ltd. of Hong Kong have completed an agreement to form a Hong Kong joint venture called "Bally Leisure Systems Ltd." The enterprise will develop and operate a chain of Aladdin's Castle family amusement centers in Asia.

Robert E. Mullane, chairman of Bally's board, and Cyril Fung, chairman of the Leisure Systems board of directors, said in a July 8 announcement that each center will contain a large variety of coin-operated amusement games, similar in concept to the chain of Aladdin's Castle family amusement centers owned and operated throughout the United States by Bally.

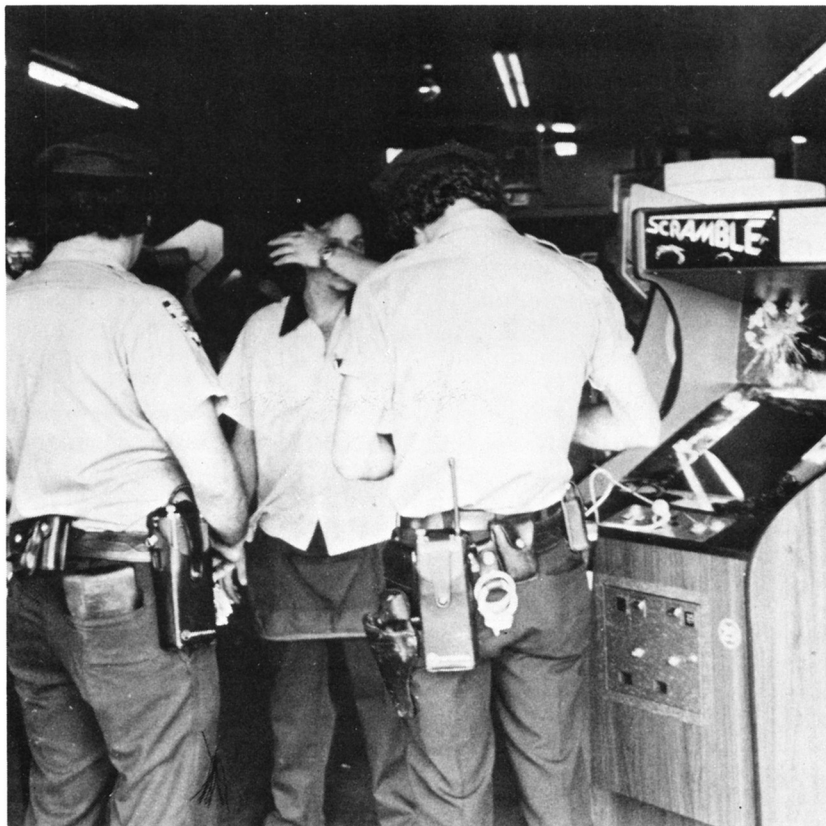
The joint venture agreement provides for the possible future development and operation of Aladdin's Castle family amusement centers in Indonesia, Macao, Malaysia, the People's Republic of China, the Philippines, the Republic of China (Taiwan), Singapore, and Thailand, in addition to Hong Kong.

Under the agreement, the joint venture company will immediately begin to seek licenses and sites for the Aladdin's Castle family amusement centers. The first of such centers was set to open in Hong Kong in August. The new Aladdin's Castles will be financed, constructed, owned, and operated by the joint venture company which will be equally owned by Bally and Leisure Systems Ltd.

Bally Manufacturing, leading producer and distributor of coin-operated amusement and gaming equipment, also owns and operates Aladdin's Castle, Inc., a national chain of over 230 family amusement centers, primarily located in major regional enclosed shopping malls.

Leisure Systems Ltd. is a Hong Kong based company headed by Cyril Fung, Kenneth Fung, and William Heering. The company is engaged in the business of providing recreational, leisure, and entertainment facilities in Hong Kong and throughout Asia.

Leisure System Ltd. is also a management, investment and consulting firm in the development and management of a variety of projects in the leisure field.



Federal Marshals seized and impounded a bootleg "Scramble" video game from a Coney Island arcade after Stern Electronics, Inc. filed a copyright infringement action in Federal Court in New York against Amusement Consultants, Ltd. said to be the owners of Faber's Arcade on Surf Avenue in Coney Island. The U.S. Court issued orders temporarily sealing the file from the public and ordering the seizure and impoundment of the bootleg "Scramble" video game and impounded it at the Marshal's storeroom in the Federal Courthouse in Brooklyn.

A Stern spokesman said that copyright lawsuits will be brought against operators who purchase bootleg games and those who sell them even if only one unit is involved. The Federal Courts have consistently issued injunctions and held that the audiovisual display of video games is copyrightable. Stern owns American marketing rights in the video Scramble.

Pacific Novelty appoints Florida, W. Canada distributors

Winford Marketing, Inc. of West Palm Beach, Florida has been assigned the Pacific Novelty Manufacturing, Inc. distributorship for the state of Florida.

Brian Semler of Pacific Novelty said the Winford firm is "new to the amusement business, but it has a long history of aggressive selling. That's what we need in the Florida market."

Winford's President Harry Kerwin met recently with Semler at Pacific's Marina del Rey, California base for demonstration of Pacific's new *Computer Portraits*. Kerwin commented, "I think it has tremendous potential. Since we're coming from the film and communications industry, I feel we need something truly different to kick off

our amusement division. *Computer Portraits* is it."

Kerwin added that Winford will be opening Miami and Northern Florida offices within the next few months.

Winford may now be reached at 305/964-7229 and 305/621-0983.

Western Canada Distributor

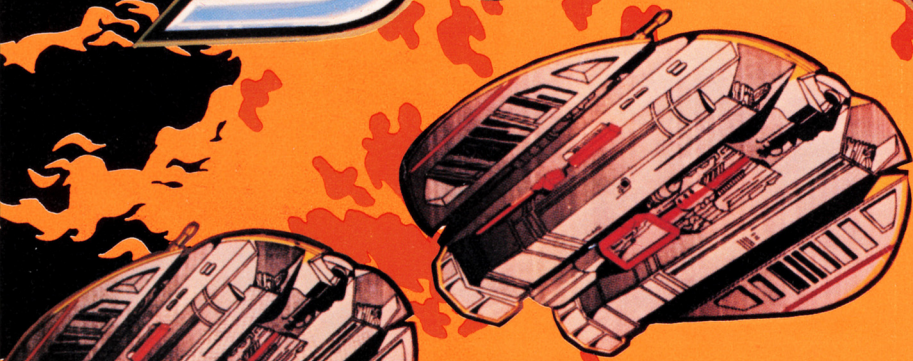
Pacific Novelty Manufacturing has appointed Coastal Games Ltd. of Richmond B.C. as its distributor for Western Canada.

Don McPhee of Coastal recently made a trip to PNM, Inc. for a closer look at Pacific's *Computer Portraits*. "It's an exciting piece," said McPhee. "I think it will be a big winner."

Coastal may be reached at 604/270-9346.

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This is your secret weapon, unique in its configuration and scoring power! Dropping a target in the upper 4-bank stops the cycling light at 20,000, 40,000, 60,000, 80,000 or 100,000 points. Completing the bank within the time limit collects the lit score . . . up to a possible 600,000 points!

“Black Hole”

Completing the upper 3-bank advances the “Black Hole” value from 25,000 to 50,000 to Drain Shield! Completing the bank before the timer runs down spots a letter in F-I-R-E for 20 seconds of double scoring across the entire playfield! Spotting F-I-R-E lights the stand-up target for Special!

“Alien Eject”

Making either bottom 3-bank randomly spots 1 of 3 locks for the “Alien Eject” holes! Lock 2 balls for 2-ball Multi-Ball™; lock 3 for 3-ball Multi-Ball™!

“Solar Target”

Hitting the “Solar Target” while the lights cycle spots a lit letter in S-O-L-A-R for a progressive Bonus Multiplier of 2X, 3X, 4X, 5X to 6X for each letter achieved. Spot S-O-L-A-R for automatic Extra Ball!

“Solar Gun”

Complete either lower 3-bank within the time limit to advance the “Solar Gun” timer 3 seconds, 5 seconds, 10 seconds! Hit the “Solar Gun” Charger and score 10,000 for every second “Solar Gun” shoots!

“Mystery Bonus”

Left inside rollover lane lights ramp for “Mystery Bonus”! Make right ramp to collect Mystery Score, spot a letter in S-O-L-A-R or light Magna-Save™ or Drain Shield!

“Playfield Bonus” and “Multi-Ball™ Bonus”

The sum of lit numbers gives you your “Playfield Bonus”! During Multi-Ball™ play, get a “Multi-Ball™ Bonus” every time you get a “Playfield Bonus”!

“Magna-Save™”

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Exhibitors are anxious, awaiting Amusement Operators Expo '82

By Arlene Curtiss

"This show has come of age."

These words are being heard more and more often in describing the industry's attitude toward the third annual Amusement Operators Expo, scheduled to take place in the beautiful Hyatt Regency Hotel in Chicago, March 26-28, 1982.

After two years of growing pains, the Amusement Operators Expo is emerging as a leading force in bringing together coin industry people via its educational and training programs as well as its exciting exhibit halls. The exhibitors with whom this writer has spoken are enthused about the move from New Orleans to Chicago for 1982, with the general consensus being that Chicago is the "right place" for a show, especially during the important spring buying season.

Anthony Scalisi, head of exhibit sales for Conference Management Corp., the show management firm handling AOE'82, says he finds exhibitor enthusiasm and support running high. He and his staff anticipate a sold-out exhibit hall in the Hyatt. "It's a pleasure for us to call prospective exhibitors," Scalisi said recently.

"Word is out that this is an important show for exhibitors. We've had no trouble finding companies interested in reserving exhibit space. In fact, many exhibitors have taken four to eight booths. Since August, we have been projecting a sold-out exhibit hall, and each new call we make just reinforces this.

"The enthusiasm of the exhibitors is infectious...Our whole sales department is looking forward to meeting the exhibitors and sharing their enthusiasm," said Scalisi.

In talking to additional industry people, we found this type of eagerness reflected repeatedly.

Jack Gordon of Gremlin Industries was eager to talk about his company's involvement in AOE'82. He began by discussing past history...AOE'81. "The reason I liked it," Gordon said, "was because it was loaded primarily with distributors and operators. We were more successful at AOE'81 than we were at bigger shows."

When asked to elaborate, Gordon

stressed the kinds of people attracted to AOE'81. He specified the seminar/workshop program and the fact that these educational sessions were well attended by the kinds of people important to the success of any industry show. "At other shows, said Gordon, "there can be too many Lookie-Lou's and not enough buyers.

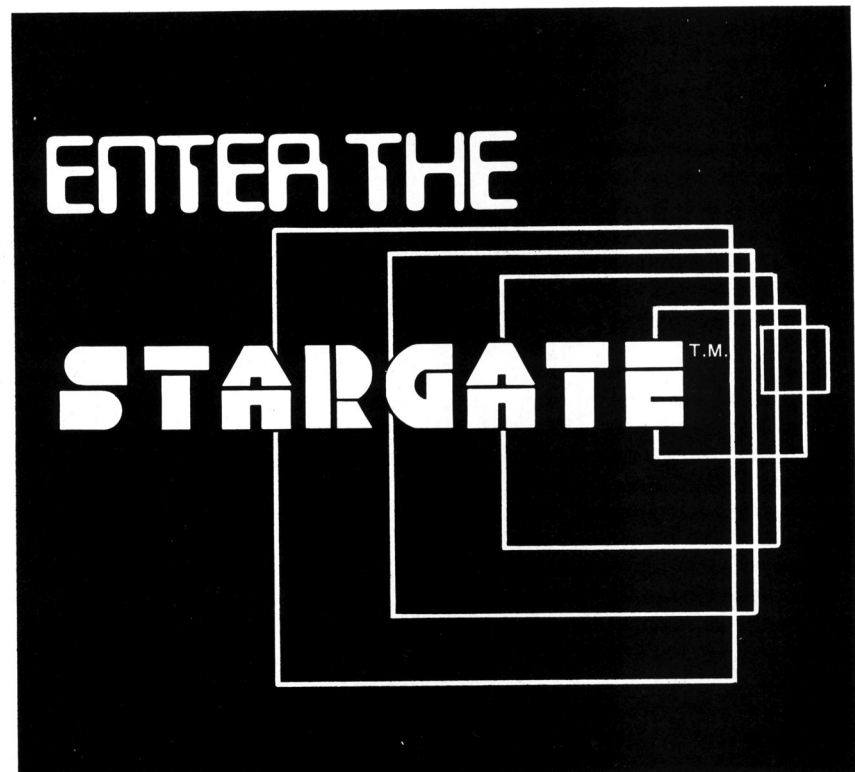
"What we want, what we got, and what we are looking forward to at AOE'82 is a selling kind of show. No doubt about it, we are enthusiastic," said the Gremlin executive.

[Ed. Note: Among the major exhibitors for AOE '82 who did not exhibit in the 1981 springtime show will be: Rock-Ola Manufacturing, Konami Industry Co., Centuri Inc., Williams Electronics, Taito America, Rowe International, Bally/Midway, United Billiards, Stern Electronics, and Tournament Games Inc. These equipment manufacturers will be among the returning AOE stands of

Dynamo Corp., D. Gottlieb & Co., Exidy Inc., Universal U.S.A., Nintendo of America, Data East, Cinematronics Inc., The Vally Co., Gremlin Industries, and U.S. Billiards, plus many support, supply, and service firms.]

For the matter of timing of the show, Tom Nieman, vice president/-marketing of Bally Pinball Division, was also willing to share his thoughts recently about AOE '82. "A show like AOE '82 affords a wonderful opportunity to show our new line of games at a great time of year." That planned timing, he noted, coincides with the spring arcade buying season.

Nieman continued, "The show has become viable because it's proven its credibility over its first two years." He was also enthusiastic about the move to Chicago, saying it's a great move for positioning and that Bally planned to use it to take best advantage of the buying season.



Bally Mfg. expecting continued games growth

Fast-moving corporate changes continued at Bally Manufacturing Corp. in late August, with Charles H. Farmer, Jr. appointed president of its Pinball Division.

In other changes at Bally, Jules Millman, president of its Aladdin's Castle chain, was named consultant to that branch, with responsibilities for its projected Far East expansion, and Bill O'Donnell, Jr., formerly president of the Pinball Division, was moved over to head Aladdin's.

Farmer had only recently been brought to the president's chair of the newly created Bally Domestic Distributors division. The changes for the pinball and distributors divisions were described as "temporary," and a search was evidently under way for permanent heads for those branches.

"Our organization will be strengthened all around with the changes made," Bally board chairman Robert E. Mullane told *Play Meter*.

Bally Manufacturing Corp. has estimated that the market now open to further coin-operated amusement games exposure amounts to 25 percent of the United States.

Bally's revenues and earnings, announced by Mullane, speaking for the corporation, were at the highest level in the company's history at the close of the second quarter and six months of 1981, on June 30.

As part of its own expansion in the coin-op market, Bally plans opening additional Aladdin's Castles to add to the chain of Bally's 235-unit family amusement centers in the remainder of 1981. In a related acquisition, Bally has acquired a Chicago-based chain of restaurants that will be expanded for amusement game rooms.

In announcing the appointment of Farmer, Chairman Mullane said: "Mr. Farmer brings to Bally unique skills that will enable us to make even more effective use of our resources and to facilitate our long range planning.

"Our research shows that only 75 percent of the United States has been exposed to coin-operated



Chairman Mullane (left) and Farmer discuss Bally changes.

amusement games. The potential for growth is unlimited in view of our new amusement center concept designed to involve entire families," Mullane stated.

"The three Bally distributing companies and the network of some 75 independent distributors throughout the country have made substantial contributions not only in terms of sales and servicing of amusement games but also in developing an attractive and secure environment," said Mullane. He noted Bally's domestic distributors accounted for over \$100 million in revenues in 1980.

Farmer echoed Mullane's estimates of the growth potential for both video and pinball games in the U.S.A. and added: "We have seen in the past few years the expansion of the games into airports, shopping centers, movie theaters and restaurants; and there is more to come.

"Wall Street analysts report that in 1980 about \$7 billion was invested by players in coin-operated amusement games. There has been a marked change in image. No longer are these

games a diversion for people between 18 and 20 years of age. These games are basic family entertainment."

Farmer continued, "It is a somewhat volatile business, subject to the whims of the moment. But I feel confident that the innovative skills and creativity that enabled Bally to become the leader will guarantee future progress in the years to come."

Bally's three wholly-owned distributing companies are Bally Northeast Distributors, Inc., located in Dedham, Mass.; Advance Automatic Sales Co., Inc.; San Francisco, Cal.; and Empire Distributing, Inc., Chicago. Arnold A Kaminkow is president of Bally Northwest; C. N. McMurdie is president of Advance Automatic; and Jerome Marcus is president of Empire.

These divisions distribute coin-operated amusement games manufactured by Bally, including various models of video and pinball games. In addition, the company-owned divisions handle competitors' lines of pinball and video games and also sell related types of coin-operated equipment not manufactured by Bally; including jukeboxes; food, beverage, and cigarette vending machines; and coin-operated pool tables.

Corporate results '81

Bally is a multi-national corporation that is now listed in the Top 500 corporations by both *Fortune* and *Forbes* magazines. Corporate headquarters and five manufacturing plants are located in Chicago. The corporation also has manufacturing plants in West Berlin, Germany, and Dublin, Ireland, and sales and distributing offices in many cities around the world.

For the second quarter in 1981, Bally Manufacturing's revenues were \$231.3 million as compared to \$178.4 million in the same period last year, according to a corporate announcement. Net income of \$23.2 million was 61% above the \$14.4

million earned in the second quarter of 1980. Earnings per share were 86¢ compared to the 54¢ per share reported a year ago.

For the six months 1981, revenues were \$441 million as compared to the \$330.9 million reported in the comparable period of 1980. Net income of \$39.1 million was 74% higher than the \$22.4 million earned in the first half of 1980. Earnings per share were \$1.46, compared to the 85¢ per share reported for the first half of 1980.

Net income for the second quarter and six months of 1981 include \$1.5 million and \$2.5 million (5¢ and 9¢ per share), respectively, resulting from the sale of property. There was no comparable gain in 1980.

Commenting on the second quarter results, Chariman Mullane noted that "revenues and earnings from Midway Mfg. Co., our video game manufacturing division, and Aladdin's Castle, our 235-unit chain of family amusement centers, both continued at record levels. We are also pleased with the results of Park Place in view of increased competition attributable to the opening of additional casinos in Atlantic City."

Acquiring Barnaby's

Bally Manufacturing Corp. has announced its acquisition of Barnaby's Family Inns, headquartered in Chicago and operating and franchising family restaurants in five states including Illinois. The acquired company will be a separate subsidiary of Bally.

Conversion of Barnaby's company-owned restaurants is planned, with the new units to contain integral family amusement centers with a large variety of coin-operated games. The converted restaurants will also feature new decor and menus.

Under the acquisition agreement, Bally acquired Barnaby's for 160,000 shares of Bally common stock. Bally presently operates Aladdin's Castles as a chain of over 230 amusement centers without restaurant facilities.

Robert E. Mullane, president of Bally Manufacturing and Angelo Geocaris, chairman of the board of Barnaby's Family Inns, Inc., a privately held corporation, jointly announced the Bally acquisition of Barnaby's.

Barnaby's is engaged in the ownership and operation of eleven family style restaurants located in Illinois and Wisconsin featuring a pizza and sandwich menu and is also engaged in franchise operations in five states, including Illinois.

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Battlezone U/R	1,395	Crazy Climber, Mini	1,795
Battlezone, Cabaret	1,295	Lunar Rescue	1,095
Football 2 PL	295	Polaris	1,595
Football 4 PL	695	Stratovox	1,495
Missile Command, Cabaret	1,695		
Soccer	995	BALLY	
Warlords	2,195	Evel Knievel	\$295
		Flash Gordon	1,695
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Star Castle	\$1,795	Paragon	645
		6 Million \$ Man	545
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		James Bond (New)	895
GOTTLIEB		Torch	795
No Man's Land	\$1,695	Totem	595
GREMLIN		STERN	
Astro Fighter	\$1,495	Big Game	\$895
Invinco	895	Galaxy	695
Moon Cresta	1,495	Hot Hand	545
Space Firebird	1,595	Memory Lane	495
Space Tactics	3,395	Metel	645
		Nugent	495
MIDWAY		Star Gazer	745
Galaxian	\$1,695	Wild Fyre	495
Rally X	1,895		
Sea Wolf	295	WILLIAMS	
Space Encounters U/R	695	Black Knight	\$1,795
Space Encounters, Mini	645	Flash	545
Space Invaders U/R	1,095	Gorgar	745
Space Zap U/R	1,095	Laser Ball	795
Space Zap, C/T	1,045	Scorpion	895
		Time Warp	595
NINTENDO		Trizone	545
Helifire U/R	\$1,495		
Radarscope U/R	1,695		
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WILLIAMS ELECTRONICS, INC.

'The Arcade School'

by Randy Fromm

The technical editor is director of Randy Fromm's Arcade School, based in San Diego, with Dallas and Philadelphia branch schools.

Understanding sophisticated optical player controls

"Man versus machine"...The psychology of the challenge is irresistible to millions of video game players all over the world. They know the thrill of guiding a high performance sprint car around hairpin turns and piloting a spaceship through waves of menacing asteroids.

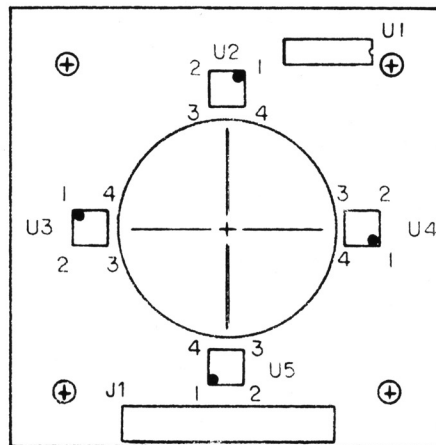
The popularity of video games is undeniable. The reasons for this popularity have been the subject of much discussion among social psychologists, but one factor keeps popping up. For the first time, the average person has direct control of a sophisticated computer and, through the skillful use of eye-hand coordination, can challenge (and occasionally triumph over) The Machine.

For the whole thing to work, there must naturally be a way for the player to interact with the computer. This is accomplished through the "player controls." By manipulating the player controls, the video game player signals the computer to perform in various ways.

The first commercially successful video game, *Pong*, used variable resistors called "potentiometers" — or "pots" for short — to control two video "paddles" that moved up and down the monitor screen. By rotating the potentiometer, the "paddle" was made to move (hopefully) in front of a video "ball," sending it back to the opponent's side of the court.

As video games became more sophisticated, so did the player controls. When Atari released its first driving games *Gran Trak 10*, it also introduced us to the first player control to use something called an *optical coupler*.

The optical coupler used a pair of Light Emitting Diodes to shine



COMPONENT SIDE VIEW

across a gap and into the lenses of two devices known as phototransistors. As a slotted wheel (connected to the steering wheel) passed between the Light Emitting Diodes and the phototransistors, the beams of light from the diodes were alternately blocked and passed through to the phototransistors which in turn signaled the computer that you were turning the wheel.

Today's optical controls

Two types of control systems have emerged as a kind of standard in current production video games. These are the button and the joystick. The button control may use either open-bladed switches or microswitches. (Microswitch is actually the brand name of a switch manufacturer. The name is generally applied to all small enclosed switches, much as "aspirin" is now a "generic" name.) The joystick however, may incorporate any one of three systems: Open bladed switches, microswitches, or optical couplers.

Two of the currently popular games that use optical couplers for

the player controls are Midway's *Gorf* and Stern's *Berzerk*. Both games use a printed circuit board mounted beneath the joystick to hold the optical couplers. There are four couplers on each board, one for each direction: Up, down, left, and right.

Also on each of the boards is a single integrated circuit. Both manufacturers use the same type of IC, an LM339. The LM339 is a "quad voltage comparator." Each of the four voltage comparators in the IC is connected to one of the optical couplers. What we have are four identical channels, one for each direction.

Anytime we encounter a situation where there are two or more identical circuits, troubleshooting becomes a simple task of using your voltmeter to compare the voltages of the bad channel to those of the working channels.

Troubleshooting

Let's take a look at a typical troubleshooting procedure for a typical problem: loss of control of one direction of movement. Say, for example, that your *Berzerk* "humanoid" cannot move up. The first instinct is to replace the optical coupler that controls the "up" motion, and most of the time you'd be right.

There is still the possibility that one of the four voltage comparator circuits in the IC has failed, or the connection between the "joystick printed circuit board" and the logic board itself has opened (entirely possible!).

To save yourself from the "agony of defeat" of having changed an optical coupler only to find that you haven't fixed the problem, perform the following simple test before

changing the part.

Each of the four optical couplers is clearly marked on the schematic. The optical coupler for the up direction is connected to pin 7 of the IC. You don't have to know how the IC works to determine if it's working or not. Just compare the voltages of the bad channel to those of a working channel.

Set your voltmeter to a DC voltage scale capable of reading +5 volts DC. If you have a digital voltmeter, this will normally be the 20-volt range. The full scale setting of an analog (needle type) meter will vary considerably between manufacturers.

Since the *Berzerk* joystick works by reflecting the light from the LED in the optical coupler off a polished washer, and back into the phototransistor, we'll actually make two voltage checks on the input pin of the IC. One will be made with the optical coupler uncovered. The other will be made with the washer (or your finger) covering the optical coupler.

Compare the voltage readings you get at pin 7 of the IC with those you get at any one of the three remaining inputs (pin 5, pin 11, or pin 9). If the readings you get at pin 7 are different from those you get at the other pins, the optical coupler is bad and should be replaced. If the voltage readings are the same, however, the optical coupler is good and your problem lies elsewhere!

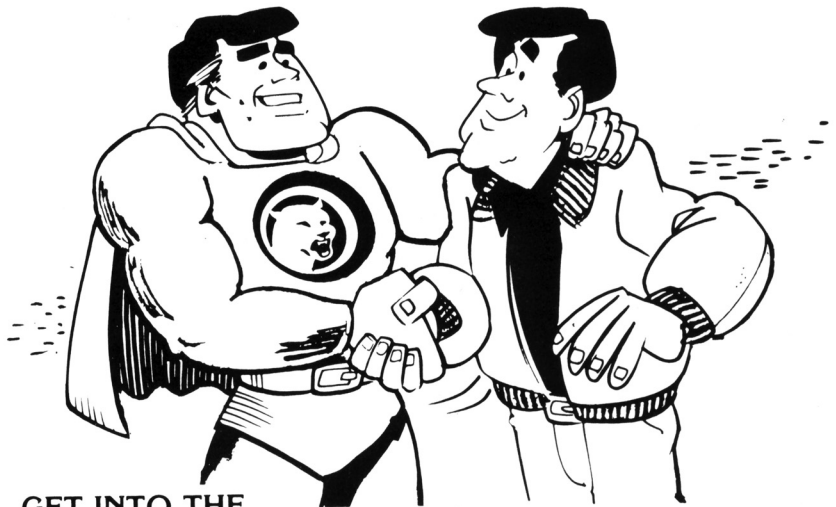
The next thing to do is to check the output voltage of the voltage comparator IC. The output of the "up" comparator is pin 1. The voltages at pin 1 should be 4-5 volts with the optical coupler uncovered, and close to 0 volts (around .2 volts typically) when the coupler is covered. If the output is stuck at a voltage greater than .8 volts, the IC is definitely bad. Replace it and you will no doubt have fixed the problem.

If the output of the IC is normal, the problem lies in the logic board itself (not likely). But if the output of the IC stays at 0 volts the problem may be in one of two places. Either the IC is bad as when the output stays at too high a voltage, or the connection between the joystick printed circuit board and the logic board has gone bad. It has been my experience in the field that the latter case seems to be the most likely.

I went out to service a *Berzerk* with a straightforward problem. It was the same problem we looked at above: the humanoid wouldn't move up. I thought I'd save myself some time, so instead of making the simple

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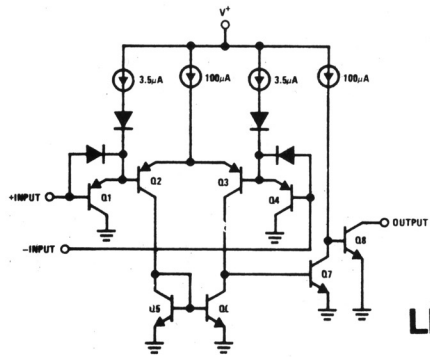


STARGATETM

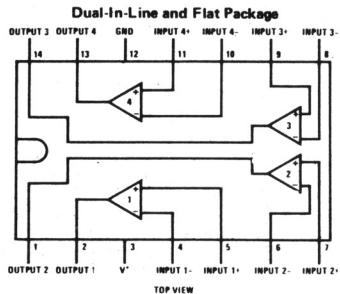
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schematic and connection diagrams



LM339



tests to see where the problem actually was, I went ahead and changed the optical coupler for the up direction.

When I replaced the board it still didn't work, so I checked the input voltages at pin 7 of the IC (both covered and uncovered). They checked exactly the same as the other three channels. When I checked the output voltage of the IC at pin 1, I measured 0 volts— so I changed the IC.

Again, when I replaced the joystick board, the up motion was still gone. The problem was actually a bad connector between the joystick board and the logic board. The pin had been crimped on the wire, but the wire hadn't been stripped properly to make a good connection.

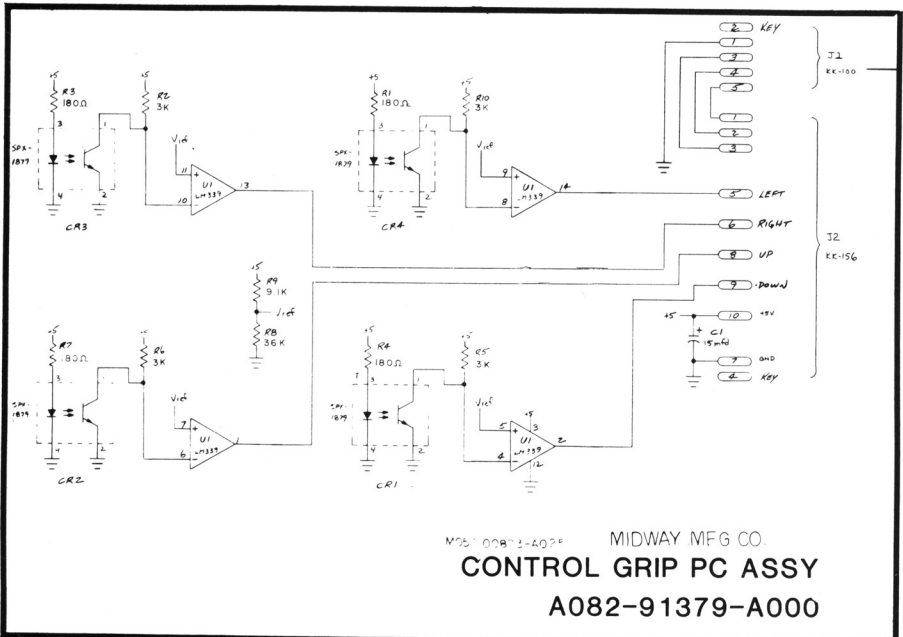
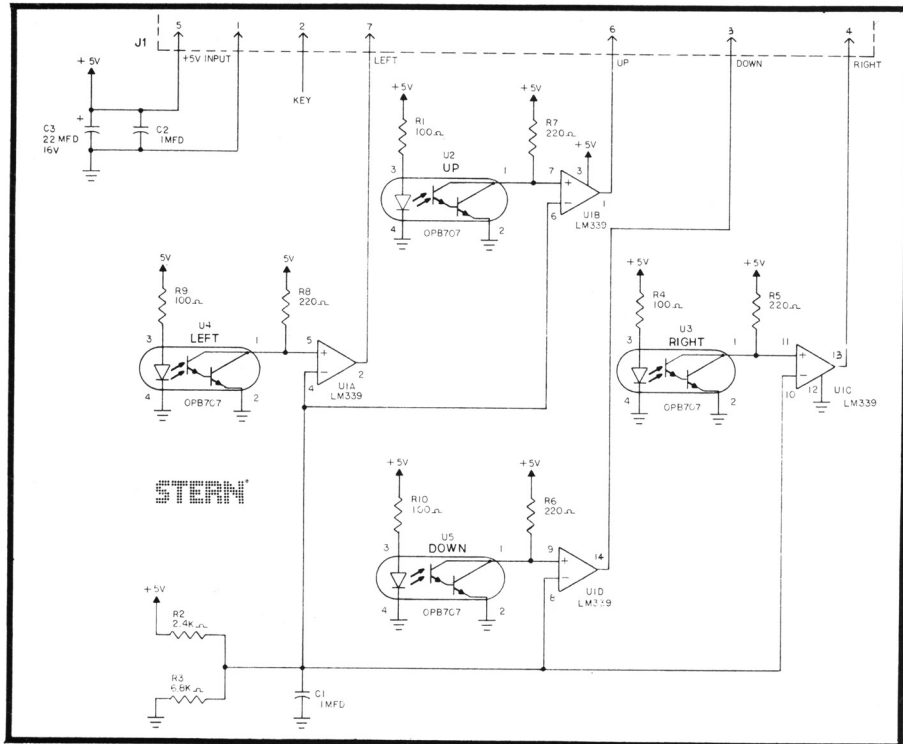
A close look at the schematic of the voltage comparator itself lends an important clue to understanding how the circuit works. Notice that the output of the voltage comparator is connected to the collector of a transistor. The emitter of this transistor is grounded.

This transistor simply acts as a ground switch, completing the return path to ground when it is turned on or saturated. The voltage comparator has no output voltage of its own. It depends on "pull-up" resistors on the logic board itself to allow some of the +5 volt power supply to flow to the output pin of the IC.

Since the connection between the +5 volt source on the logic board and the output pin of the IC was broken, I naturally got a 0 volt reading even though the IC (and the entire circuit, in fact) was working properly.

The fastest and easiest way to determine if the problem is the IC or the connection between the logic board and the joystick board is simply to swap the connector pins at the joystick board between a working channel and the one that's not working.

For example, what I should have done in the case of the humanoid that won't move up, was to swap the "up" connector pin with the "down" pin (or any of the working directions). If I could then make the humanoid move down by moving the joystick to the up position (we've swapped wires, remember?) — I would have known that the problem was not with the joystick board at all, but in the connection to the logic board, or the logic board itself. I sure would have saved myself a lot of time and trouble! I had to make a special



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trip to pick up the IC.

By the way, if you operate *Gorf* or *Berzerk*, I suggest that you pick up one or two of these LM339 ICs.

The *Gorf* optical coupler system is virtually identical, but with one major exception. Instead of sending a beam of light out and reflecting it back, the beam of light from the LED in the optical coupler is shot directly across a gap and into a phototransistor. The player moves the control to allow a small piece of metal to enter the gap and block the light from reaching the phototransistor.

It is for this reason that you will notice the input pins of the IC (the ones that connect to the optical couplers) are marked (-) for the *Gorf* system, and (+) for the *Berzerk* system.

In *Berzerk*, the phototransistor is turned on when the player control is moved to activate motion in a certain direction. In *Gorf*, the phototransistor is turned off to activate motion.

The most common problem is, of course, failure of the optical coupler itself. Since the LED in the optical coupler is always emitting light (as long as the game is turned on, not necessarily being played), it eventually burns out. Unfortunately, you cannot look at the optical coupler and see if the LED is working or not.

The optical couplers work with "infrared" light. Infrared light is of too low a wavelength to be seen by the human eye, much as an "ultrasonic" dog whistle is above our range of hearing. Fido can hear it but you can't. The same principle applies with infrared light. We can't see it, but the phototransistor can.

This explains why an optical coupler failure in *Gorf* makes the ship move by itself in the direction of the bad coupler, and a similar failure in *Berzerk* prevents motion in that direction.

When the LED fails in *Gorf*, the phototransistor in the optical coupler is "fooled" into thinking that the gap has been blocked by the joystick control. When the LED fails in *Berzerk*, the phototransistor can never receive any reflected light—so it never tells the computer that you've moved the reflective washer over the optical coupler.

If you operate *Berzerks* or *Gorfs*, make sure that you have some spare optical couplers on hand. The two games use two different types of optical couplers, so if you operate both games, you'll have to carry both types. ●

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FRANK'S CRANKS



By Frank Seninsky

When the ball gets lost among the decorative plastics

Pharaoh makes it three multi-level, multi-ball games in a row for Williams. The games are coming out so fast that I didn't even get a chance to review *Jungle Lord*, which was the Williams game after *Black Knight*. In this case it really doesn't matter because most of the playfield and design improvements made on *Jungle Lord* have been carried over to *Pharaoh*.

When Williams produced *Black Knight* it was the first time that so many new features had been added onto a game at one time and there are bound to be areas that would cause headaches for service people. Many of these "nuisance" problems were easy to fix, such as replacing a broken post or rubber, adjusting the ball track switches, or changing flipper coils and break blades (end-of-stroke switches).

The unfortunate aspect is that these same problems occur over and over. After experiencing this initial wave of deficiencies on *Black Knight*, Williams has concentrated on improving design which has meant strengthening the playfield devices to withstand the tremendous forces exerted by the "lively steel ball."

The playfield miniposts on *Pharaoh* have been better protected than those on *Black Knight*. There are a total of four miniposts. Each is located near a flipper. These posts have been covered by a thick hardened rubber in the shape of a cylinder. The rubber cylinders absorb the direct hits of the pinball as it comes off the flipper. Since they are so much larger than the tiny minipost rubbers that had been used



Williams' *Pharaoh*

before, they will last much longer.

On *Black Knight* these posts would frequently break because the rubber would wear out and the shock of the ball was more than the post could stand. With these new rubbers this problem should be eliminated on *Pharaoh*.

The decoration plastics are held in place by soft rubber caps which are placed over the tops of the threaded post screws. It seems that most of the pinball manufacturers are now using these rubber caps. Due to the vibration caused by the impact of the ball, these caps are easily loosened and frequently fall off. The result is having the cap block the ball or get into one of the playfield devices. The

decoration plastic is then free to find its way onto the playfield, causing the ball to become trapped. Whatever happened to the old metal caps that almost never came off?

I was leading up to the fact that on *Pharaoh* four of the rubber caps have been replaced with plastic threaded caps. The area where this tremendous improvement has taken place is on the kicker (slingslot) plastics. Since the kicker plastics are the most prone to vibration, this is a nice gesture by Williams.

The plastic caps will certainly hold on better than the rubber caps. But why only use four? Be careful, these plastic caps will crack or strip from over-tightening. Anyway, the kicker plastics should stay on *Pharaoh* and won't be the cause of many service calls.

I received numerous service calls on Williams pinball games when the metal guide rail slides came loose and the ball got trapped against this rail and a rubber bumper or other playfield feature.

Pharaoh has two of these metal chute rails, one on the top left side of the playfield and another on the top right edge of the playfield. These chutes are attached to the frame by just one small nail at each end.

After a few minutes of testing I noticed that the nails pulled out slightly. It is much safer to just put a flathead screw in place of the nail if the guide comes loose. I would hope that Williams would use screws in place of nails of future models.

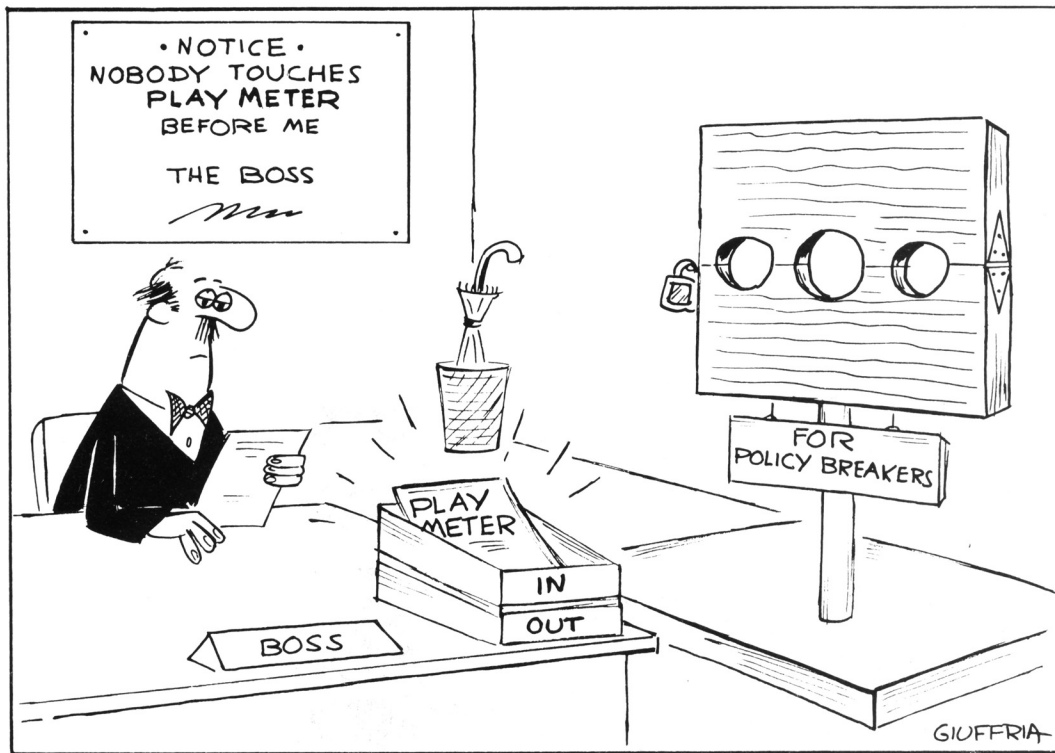
One new feature that is designed correctly is the "Pharaoh Chamber" on the top right of the playfield. A pinball that is enclosed in the

'I received numerous service calls when the metal guide rail slides came loose and the ball got trapped between it and a playfield feature...'

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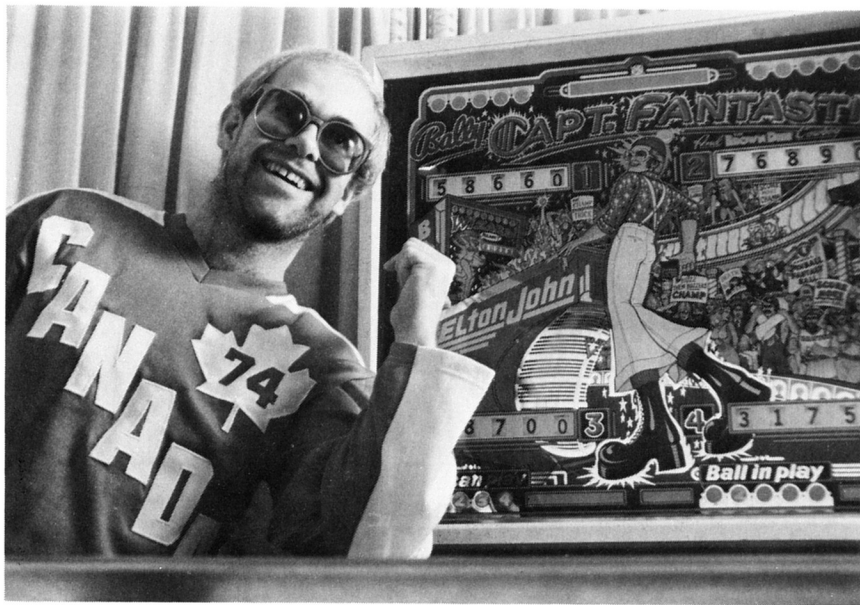
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MUSIC PROGRAMMING



Elton: back to the early years

By Pat Matthews



Pat Matthews has been on vacation, and with him "Music Programming." We welcome the return of both to this issue. —ed.

For those of us approaching or secretly sliding by the ambiguous age of thirty, our lives have been musically blessed. Unlike our parents and theirs, or in all probability, our children, we have experienced an ever changing musical element. From the raw roots of rhythm and blues, and country to rock, folk, soul, and their splinterings of psychedelia, heavy metal, disco, etc.—the thread which has held it all

together has been mainstream "pop," a vein of music which has survived. There are, of course, other survivors...the musicians. None of whom have endured the scars and become a better man for it than singer/musician/composer Elton John.

From ballad beginnings through rock and roll years and flirtations with disco music, the thread of his music has been his talent for creating melodies...that melody which always seems to catch the ear of the listener. The legend continues...

Chloe—Elton John—Geffen/49788

This time Elton takes us back to the early years—as far as the style and content of the song is concerned. The mood is tranquil love and the results are a certain hit. If you liked the likes of "Your Song," "Sixty Years On," etc., you'll love this! The magic of the ballad hasn't left the fingers and voice of Elton John; *10 out of 10* for sure. May be a bigger Easy Listening hit than Pop.

Love All The Hurt Away—Aretha Franklin & George Benson—Arista/AS 0624

In many cases, duets never get the point across. Neither vocalist gets the proper opportunity during the course of the song to stand apart from the other. Not the case with this certain crossover hit from a pair of legends who I always hoped would get together, but never dreamed it possible. The song is certainly soulful and nobody could sing it better than the King and Queen of Soul; *10 out of 10* on highest chart.

The Voice—The Moody Blues—Threshold/TR 602

Finally, a Moody Blues record that sounds like the Moody Blues. It takes the song-writing talents of Justin Hayward, I guess, to accomplish that familiar sound. It's from the "Long Distance Voyager" lp and sounds as good as the picture jacket looks: mellotrons swirling, guitars fuzzing, and the steady drum

beat of Graeme Edge all add up to a welcome return to the grand masters of Orchestral Rock; *8 out of 10* or better.

Draw Of The Cards—Kim Carnes—EMI America/8087

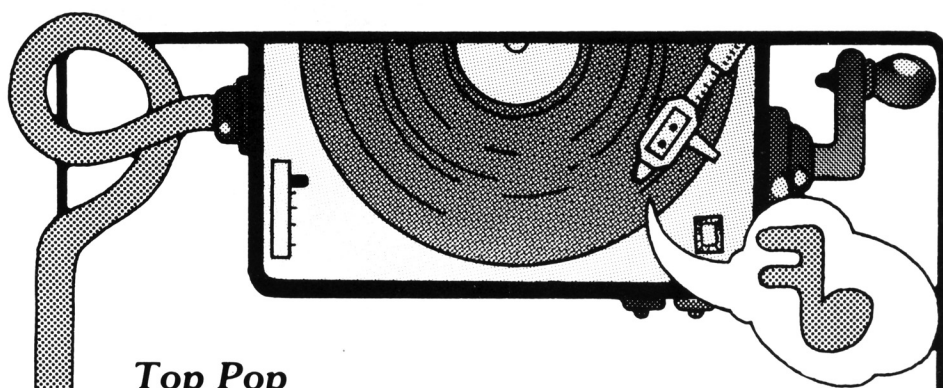
It's a definite departure from the ultra successful "Bette Davis Eyes," yet there's more to it than initially meets the ears. My first impression was to label it weird, but the lady's hot—and *that* voice! It's the hook of the whole thing which is written by Kim and her husband, Dave Ellingson. Nice guitar work, fluid sax runs, chanted background vocals, and that ever-present synthesizer combine for one of the most pleasingly strange sounds in music today. Already big on the strength of the artist, now it's up to the song to prove its worth in the long haul; *9 out of 10*, at least.

The Night Owls—Little River Band—Capitol/P-A-5033

The layoff between efforts has certainly had its effect on the band. So has the presence of one George Martin. The master producer (of Beatles and America fame) works his magic again! The results are incredible. This particular song from the Martin-produced, soon-to-be-released "Time Exposure" lp is a bit more rock'n'roll than earlier singles from this classy musical act, but the recognition should be immediate. Nice stuff, and it should do at least a *9 out of 10*.

Silly—Deniece Williams—ARC-(Columbia)/18-02406

If, when you first listen to this one, you hear a resemblance to the music of The Stylistics, you're not alone and there is a reason. The tune is co-produced, along with Ms. Williams, by none other than Thom Bell. Bell is a legend in R&B circles. Other than penning "You Make Me Feel Brand New" by the aforementioned soulful quintet, he's produced the Spinners and others. He even wrote and produced an LP for Elton John! It was The Thom Bell Sessions, appropriately enough (remember "Mama Can't Buy You Love?—that was him!). This one has all the earmarks of another success for Bell mainly on the strength of the beautiful voice of Deniece Williams. Her range is incredible and her interpretation of this magnificent love ballad could never be equaled. This will be a fast riser, so get to it today! *10 out of 10 on every chart!*



Top Pop

REALLY WANNA KNOW YOU—Gary Wright—Warner Brothers***
FOR YOUR EYES ONLY—Sheena Easton—Liberty***
THE BEACH BOYS MEDLEY—Beach Boys—Capitol
THAT OLD SONG—Ray Parker, Jr. & Raydio—Arista***
HOLD ON TIGHT—ELO—Jet***
STOP DRAGGIN' MY HEART—Stevie Nicks—Tom Petty & The Heartbreakers—Modern/Atco***
START ME UP—Rolling Stones—Rolling Stone Records
FIRE AND ICE—Pat Benatar—Chrysalis***
I COULD NEVER MISS YOU (MORE THAN I DO)—Lulu—Alfa***
IN YOUR LETTER—REO Speedwagon—Epic
STEP BY STEP—Eddie Rattitt—Elektra
FEELS SO RIGHT—Alabama—RCA
I DON'T NEED YOU—Kenny Rogers—Liberty
QUEEN OF HEARTS—Juice Newton—Capitol***
WHO'S CRYIN' NOW—Journey—Columbia***
SLOW HAND—Pointer Sisters—Planet***
URGENT—Foreigner—Atlantic***
LADY (YOU BRING ME UP)—Commodores—Motown***
(THERE'S) NO GETTING OVER ME—Ronnie Milsap—RCA
TOUCH ME WHEN WE'RE DANCING—Carpenters—A & M***
DON'T GIVE IT UP—Robbie Patton—Liberty***
COOL LOVE—Pablo Cruise—A & M***
YOU'RE MY GIRL—Franke & The Knockouts—Millenium***
ENDLESS LOVE—Diana Ross & Lionel Ritchie—Motown***

Country & Western

PARTY TIME—T.G. Sheppard—Warner Brothers/Curb
MIRACLES—Don Williams—MCA
A TEXAS STATE OF MIND—David Frizzell & Shelly West—Warner Brothers***
STEP BY STEP—Eddie Rabbitt—Elektra
TAKIN' IT EASY—Lacy J. Dalton—Columbia
OLDER WOMEN—Ronnie McDowell—Epic
TIGHT FITTIN' JEANS—Conway Twitty—MCA
I DON'T NEED YOU—Kenny Rogers—Liberty
YOU DON'T KNOW ME—Mickey Gilley—Epic
(THERE'S) NO GETTIN' OVER ME—Ronnie Milsap—RCA
QUEEN OF HEARTS—Juice Newton—Capitol***
DON'T WAIT ON ME—Statler Brothers—Mercury/Polygram

Rhythm & Blues

SUPER FREAK—Rick James—Gordy
SQUARE BIZ—Teena Marie—Gordy
SHE'S A BAD MAMA JAMA—Carl Carlton—20th Century Fox
JUST ONE MOMENT AWAY—Manhattans—Columbia
CAN'T WE FALL IN LOVE AGAIN—Phyllis Hyman & Michael Henderson—Arista
THAT OLD SONG—Ray Parker, Jr. & Raydio—Arista***
LOVE ON A TWO WAY STREET—Stacy Lattisaw—Cotillion
SLOW HAND—Pointer Sisters—Planet***
ENDLESS LOVE—Diana Ross & Lionel Ritchie—Motown***
LADY (YOU BRING ME UP)—Commodores—Motown***
I'M IN LOVE—Evelyn King—RCA
JUST BE MY LADY—Larry Graham—Warner Brothers***

***denotes records reviewed previously by PLAY METER

chamber is hit by the main ball. No matter how fast or slow the enclosed ball rolls there aren't any areas where it can get stuck.

How many times has the ball got caught between the playfield glass and one of the decoration plastics? On *Black Knight* I found the cause of this to be the two foam rubber type spacers that were stapled just above the back of the playfield. These may even have been considered shipping blocks, but when they both are removed the playfield rests just below the glass so the ball can't fit in between. The problem was that these spacers exerted too much force on the playfield and pushed it down.

Williams has removed these spacers on *Pharaoh* and now uses two L brackets with only a small rubber grommet touching the playfield. This is much more practical, but if the ball gets up between the glass and the top of the playfield these brackets can be adjusted or the grommets could be removed.

The coin door is the same as used on past games. I can see no major problems but there are a few details to be careful with. (1) The handle on the cashbox can bounce and touch the coin switches. There have

been cases where by punching the front door this bar can be made to jump up and give free credits. Make sure that the plastic coin switch protectors are on and the diodes aren't bent forward.

(2) When removing the cashbox it's very easy to scrape against wires or short out the components on the bottom of the door. It's always a

'There are a few coin door details to be careful with—including the handle, wires that can short, and stabilizing pins.'

good idea to shut off the game before removing the cashbox and replacing it. Remove and replace the cashbox very slowly.

(3) The pins that stabilize the coin chutes against the door come loose very easily. This can cause coins to jam up because the coin chutes will not line up with the guides. If the pins fall out they are hard to find because they can fall


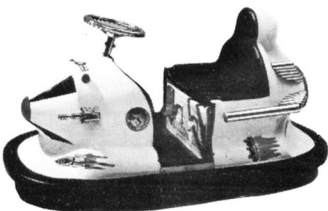




down inside the door or fall out when the game is opened. To avoid this you could put lock-tite on these pins before the game goes out into the field.

The main improvement made on *Pharaoh*, which was first made on *Jungle Lord* is that the two micro switches have replaced two switches on the ball return track. Numerous service calls on *Black Knight* were due to these switches getting dirty or not being spaced properly. The micro switches should work much better.

One thing to check is the main harness wiring which runs past the first micro switch arm and can easily get caught onto it. Bend or tie up the harness away from this area and you'll never have to worry about it again.

A new coil has been used on *Pharaoh* for the left ball kicker in the "Hidden Tomb." This AN 5622 550-DC coil has more power than the SA 23 850-DC coils used, for instance, in the ball return.

There are three special relays now used instead of one. These relays are used for general illumination of the backbox, upper playfield, and lower playfield. By utilizing three relays it's much easier to find a problem and

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the load is divided up so there should be less problems than on past games with the light circuits going out. Hopefully the bulbs won't burn out as fast either.

The flippers have also been wired differently. The center tap of the lower playfield flipper is now the main tap on the upper playfield flipper. This will give the bottom flippers more strength and take away some strength from the upper playfield flippers. In this case, since the upper playfield is much smaller in size, it is not important that these flippers be as strong. It's much better to have the bottom flippers as strong as possible.

The current from the upper flippers is run through the end-of-stroke switch on the lower flipper. As soon as the lower flipper EOS switch opens, the upper flipper can receive power. This split second delay gives the lower flippers the extra power that they require.

Another plus for *Pharaoh* is more random speech. When a feature is completed the program will randomly select a speech pattern.

Minuses

Some features I did not like on *Pharaoh* were: (1) The tran-

former is mounted on the floor of the cabinet, which is good for heat dissipation—but all the way in the back. This will save some harness wiring but it makes it very difficult to even see it with the playfield raised. It would be better if it were mounted closer up front on the cabinet bottom.

(2) Most of the rollovers on

'The transformer is mounted way in the back and is difficult to see with the playfield raised.'

Williams games don't stick up very much above the playfield surface. Therefore the switches have to be kept very close so they will have a 1/32" follow through when closed by the ball. This creates a dangerous situation of having the switches vibrate closed or move too close from normal motion.

It is better to pull the wire rollovers up higher above the playfield so

there will be more blade movement. Williams should just make a longer rollover arm.

(3) The thin black tubing on the flipper shoe wears off too easily, or falls off. This can cause the shoe to eat away at the end of stroke blades and can also cause arching if there is no insulation between the shoe and the blade.

Overall, I would say that *Pharaoh* is a pretty well-designed pinball game. It's better-than-a-7 but not quite a 9, so I'll give it an 8.5.

This will be the last "Cranks" for the next couple of months. I won't have time to write about specific games, but I will be taking notes and looking at features of new games that I feel need to be improved.

Midway has just sent me the new improved bushing for the *Pac-Man* steering joystick control. Three pieces are to be changed: the cutout which goes over the hole and is the stop in the four directions, the bushing that has a ring attached—it's made of hard plastic and is one piece—and the ball at the bottom of the joystick that pushes up against the switches. I think these pieces will keep the bushing from wearing out as quickly. I'll keep you posted. •



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Players evaluate new games

Ed. Note: With these pages, Play Meter re-introduces video games reviews from a player's perspective—a popular feature in the past and the object of many readers' request for more. We'll keep these two present contributor's biographies in the files only, for now, except to note that both are avid players of video; Rosenhouse is a native of New Jersey, and Karp lives in New Orleans, Louisiana. Both are independent of our editorial staff or any manufacturer. We invite comments on both reviewer's columns to be sent to Play Meter.

Review/

by Robert Rosenhouse

Atari's CENTIPEDE

After many years of video companies producing space themed games, we now have a semi-realistic game on our hands.

The game starts off with a slow moving centipede winding its way through a field of mushrooms. Each time the centipede hits a mushroom, it changes direction and drops down another row. The player's weapon is a gun controlled by Atari's patented Trak-Ball. This time, the Trak-ball is the smaller version used on the *Missile Command* cocktail tables. The gun is fired by hitting the fire button and can be fired continually by holding the fire button down, a nice touch. The player can move the gun from left to right and up to the fifth row from the bottom.

To get an open shot at the centipede, the player needs to destroy some of the mushrooms. This may take three or four shots per mushroom. When the player does hit the centipede, it divides into two separate centipedes and forms a mushroom where he hit it. If a "head section" reaches the bottom of the screen, another head is added. At this point of the game, many heads may form, and the player must play "dodge ball" and move himself so that he won't be hit by any of the heads.

To make this game more intriguing, a spider is released on the field to destroy the player. When the spider is hit, a random point value is added to the player's score. Once all of the segments of the centipede are destroyed, the playfield changes color (a la *Missile Command*)— and a new centipede is released from the top of the screen.

In later rounds, other creatures appear to haunt the player. A flea occasionally drops from the top of the screen and leaves many mushrooms in its trail. A scorpion travels either left to right or vice-versa and changes the regular mushrooms into poison ones. If the centipede hits a poison mushroom, it heads directly at

Review/

by Robert Karp

Midway's OMEGA RACE

This is a complicated and fascinating game which one wants to play over and over.

The game involves a group of star-like opponents which move around the screen more or less in pursuit of the player's ship. There are active and passive opponents. The active "stars" contain a triangle in their centers and are capable of firing bullets at the player's ship. The passive "stars" do not contain the triangle and can only destroy the player's ship by contact with it.

At the beginning of each round the opponent's "team" has several passive and one active star. However as the active (triangle-containing) star moves around the board, it deposits triangles on the play area. These triangles have two functions: (1) they serve as mines which destroy the player's ship on contact, and (2) they serve as converters which change the opponent's passive stars to active stars.

If the player contacts the edge of the board, a line lights up and the player bounces off.

At a certain point the opponent's active star speeds up, changes shape and begins firing and depositing triangles at a dizzying rate. This is probably the most challenging moment of the game, as the speedy active star is a very formidable opponent.

There is a lighted rectangle at the center of the screen which serves as the infield for the "racetrack." The player's ship bounces off this rectangle.

Strategy involves destroying the passive stars before they become active, destroying the triangles which serve as mines and converters, and keeping out of the way of the active stars unless a confrontation is desired. The player tends to go round and round the board, as the player keeps away from the active stars and chases down the inactive ones. But if the player waits too long to take on the active stars, they mutate into speedy active stars

'A demonstration mode similar to Asteroids' would be nice for Centipede ... since there are practically no instructions for the player...'

—reviewer Rosenhouse

Rosenhouse's review continued

the player until it reaches the bottom, and then it regains its normalcy.

Destroying a segment of a centipede scores 10 points, a head scores 100 points, the flea scores 200 points, and the scorpion scores 1000 points. When the player is hit by one of the insects, he is killed. When he is killed, the game adds 1 point to the player's score for each mushroom that was formed when the centipede was hit.

At most locations, the player is given three turns per game with a bonus turn given at each 12,000 points attained. I feel that 12,000 is a little high and would recommend the next setting down, unless, of course, the players are killing your machine. This game should definitely be set for 25¢ play as it can't sustain any higher.

The usual Atari High-Score table is present along with the initials of the high scorers. When the game is in its attract mode, it shows a centipede coming down the screen. I feel it would be nicer to have a demonstration mode similar to *Asteroids* or *Missile Command*'s. This way, a player could get an idea how to play, since there are practically no instructions given to the player.

Centipede's score

Now for the ratings: At the end of all my game

reviews, I will rate each game in five categories. The totals of these categories I will use in each review: Player Appeal, Graphics, Sound, Player Given Instructions, and Progressions. So without further ado, here are the ratings:

PLAYER APPEAL:	Good
GRAPHICS:	Good
SOUNDS:	Good
INSTRUCTIONS:	Poor
PROGRESSIONS:	Very Good
OVERALL RATING:	Good

Centipede will definitely make a fine addition to any game room, and I would recommend it for most street locations.

Well, that's the review for this issue. Next issue will bring you a review of a new Midway game which just may be a hit. If you have any suggestions (good or bad) for this column, please drop me a line c/o *Play Meter*. So, until next we meet, go out there and make it a good one! ●

Karp's review continued

which are very deadly.

The player receives three ships for one coin or seven ships for two coins. Extra ships are earned for scoring 40,000, 150,000, and 250,000 points. Two credit games are awarded for scoring the all-time high score on the machine.

Triangles deposited on the screen remain there until destroyed, so the player may encounter a heavily mined playfield if he allows too many triangles to be deposited.

ANALYSIS: This is a very clever game which will add a new dimension to any arcade's offerings. It will likely be very popular.

Colony 7/Taito

Colony 7/Taito is similar in many respects to *Missile Command*. It has a crosshair sighting/aiming device and "ground" based projectiles. The aiming crosshair is controlled by a joystick, with movement possible in four directions—up, down, left, and right.

Unlike *Missile Command*, *Colony 7* has three types of projectiles. First, the Fire button controls exploding bullets with a small area of destruction. Next, there is a second button which fires the "Megablast" with a larger area of destruction. Finally, there is an

"Eradicator" button which destroys everything on the screen.

A player has an unlimited number of exploding bullets, but only a few Megablasters and only one or two Eradicator blasts per round. There are two rounds per game, each round lasting until both ground-based cannons are destroyed.

An option available for an additional coin is "increased firepower" which widens the area of destruction of the exploding bullets and the Megablaster. It is possible for one or both players to exercise this option in a two-player game.

The attacking waves upon which the player's firepower is utilized consist of spaceships of various sorts. These start at the top of the screen and sweep back and forth across the screen, firing bombs at the player's ground defenses. The only significant differences in these spaceships is that the larger ships drop bombs from near the top of the screen, making it necessary to destroy them as soon as they appear. The smaller ships are only deadly at close range.

A system of bonus points rewards the player with points for successfully destroying attack waves of spacecraft. ●

'The option available for "increased firepower" widens the area of destruction possible on Colony 7'—

—reviewer Karp



By Roger C. Sharpe

'In the swim' of the new pingames tide

I have often in the past talked about "lead time" which in the magazine business means that copy must be written far in advance of the actual date when you're reading this. Frequently it's a problem. I recently had a conversation with someone who stated that I was doing games well in advance of when they appeared in his neighborhood arcade, while others have commented that the games appear too far after the fact of their production run.

Unfortunately, there's no clear cut solution to the dilemma, although I do try to ration out the equipment at hand in a reasonable order of when they should be hitting the streets.

But the reason I bring this subject up is that, although for me now it's the end of August, by the time you're reading these words I should be celebrating (God willing) the birth of my second child and it's difficult to disassociate these two events and keep them in perspective. Somehow, the feeling is like being in limbo and my concern is whether I'll even be able to attend this year's AMOA convention at the end of October, or play daddy and miss my first AMOA in seven years. However, as the saying goes, time will tell.

More important is the fact that pinball continues to gear up and there should be a number of surprises in store as we get closer to the end of yet another year that has proved quite interesting. Although video has enjoyed its sustained success, pinball has seemingly forged its own following that continues to build with each succeeding game, with even many in the industry expressing the view that the games today are probably more inventive and exciting than at any other time in the history of the

business. And a look at recent efforts tends to support this view.

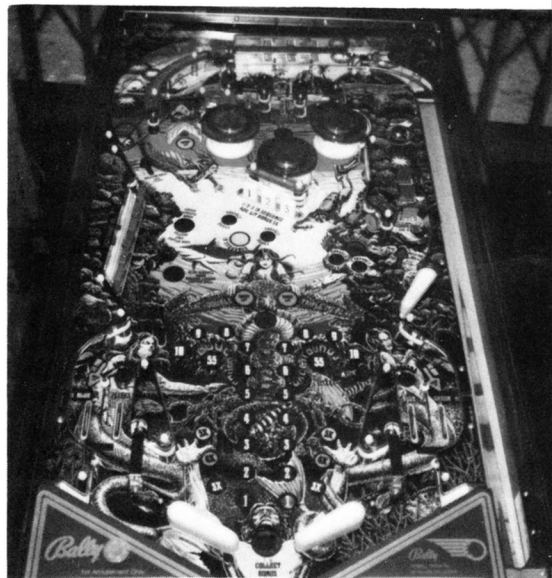
We've witnessed an integration of ideas and concepts not only with basic playfield design but also in terms of programming and the additional impact and influence of graphics and sound. The total effect has been nothing short of remarkable when you look at how quickly the changes have come. In many ways much the credit must go to video which has forced this new direction and increased attention to detail, but then this has always been the nature of the business and probably always will be.

In fact, pinball has been driven to expand its limitations and horizons as to what can be accomplished within the existing space and how can that space be best utilized. So the end result is that, although there may be fewer models to choose from, compared with recent years, they are of a higher quality just in terms of what they are now offering the player. And, I think increasingly, the player is noticing this and responding to it when given the chance to have access to the machines.

The efforts you'll see at the show or hear about if you can't attend in person, will undoubtedly confirm this since even at this point there is much speculation as to what will be on display and whether pinball will indeed pull some tricks from up the manufacturer's collective sleeves.

For this writer, I tend to believe that we are on the brink of some exciting developments that may even complement the traditional machines as we know them as well as further establish their place in the market.

One of the most active companies this year has been Bally, which has



Bally's FATHOM

'Fathom, I gather, is the first-time effort of a new designer at Bally. . .and he should be around for quite awhile.'

hit us with a variety of machines that in essence show off the diversity of its corporate thinking regarding pinball and what individual games can provide, given the existing technology. This issue brings yet another, with multi-ball play and some added touches that have resulted in a very solid machine with a great deal to offer.

Bally's FATHOM

This most recent effort from Bally hits the depth, figuratively speaking, and the result is a game with some interesting nuances in terms of playfield design as well as programming functions.

PLAYFIELD: The entry for the ball off the plunger leads to a top three lane set-up (A-B-C) that's controlled by a right flipper lane change. Just to the left is the beginning of a metal arch lane with rollovers that leads up to an upper right kick-out hole, for locking up a ball for potential multi-ball play.

Once the ball is rested in the hole,

there's an in-line configuration of three targets and a beautiful touch for the ball to gain entry back down: what I would call a long metal "gate" that the ball pushes against and is able to roll down through.

Move back to the main part of the field and just below the upper lanes are three thumper bumpers with a three-drop-target bank, as a slight angle, in front of the lower bumper. At the right of this is a yellow target that means an extra ball when lit, while further over to the right we see a similar set-up to the top: a fairly deep and steep kick-out hole for locking up a ball and three more in-line targets, all "guarded" by a flipper.

Meanwhile over at the left is a nice long drop target bank with six green and blue targets. The bottom is a different approach with outside "scoops" that lead into the flippers as well as straight down roll-over lanes that do provide some nudging or instant death and two kickers inside this.

ANALYSIS: From what I've gathered, this is the first time effort of a new Bally designer and if this is any indication of what he can do, he should be around for awhile.

There's good balance from top to bottom and an integration of features that more often than not are doing double-entry. The three lanes on top can mean an increase to those lower "scoops" of 50,000 points when lit, while the three bank (1-2-3) in the middle are sequence-bound, meaning that the player has to get them in order to light that right side target, which is on a timer, for possible extra ball. They also can mean advancing bonus multiplier and bonus for what is two games in one, with a green and blue bonus build-up.

Hit the in-lines when there's a ball trapped, or get down the left side targets at the appropriate time and multi-ball play can begin—either two-ball or three-ball with complimentary point values increased on the playfield corresponding to how



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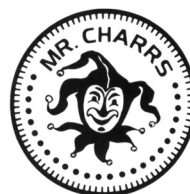


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'It's a game a player can get comfortable with, allowing any number of play strategies to take advantage of the entire board...'

many balls are in play, which is a great touch and makes multi-ball play that much more rewarding.

The right side, minus the flipper, with its in-lines is really a flip-flop from *Viking* but somehow it's more attainable on the right side than it was with that previous machine and the additional flipper helps for some short reverses or sweeps up to the top arch and the upper in-lines or kick-out hole.

In fact, there's pretty decent access throughout the board from either of the two bottom flippers. The really nice thing about *Fathom* is that on extra ball play, the board remains the way it was when the ball drained, so it is truly a continuation of play and adds to the flow of the game: a true bonus that undoubtedly the programmer must be thanked for. But then there are subtle touches such as that, especially with the introduction of that long "gate" on top.

The bonus can be hefty and is carried over from ball to ball

although the multiplier isn't. However, we're talking about 55,000 points on either side (Blue and Green) and the chance for a special when a player reaches up to what I think is 75,000 points on both sides.

Another is that the area between the center bank and the right side target leads directly to the thumper bumpers and can sometimes result in a ball being sent back down after a "missed" shot, right through the flippers, or not have enough velocity to compensate for its return flight.

On the whole, though, *Fathom* is a game a player can get comfortable with, allowing any number of play strategies to take advantage of the entire board.

RATING: ###1/4

With the Chicago show signalling once again the annual rush to bring out attention-grabbing machines, the games on tap tend to confirm the commitment. Next issue you'll have a chance to get a close look at Stern's *Split Second*, a multi-ball,

double-level machine that's big-game size and continues this company's presence in the marketplace. Also on the horizon is the newest from Gottlieb which should turn some heads if there were any doubters about this company's viability. With this model, *Black Hole* they'll have three in a row and a firming up of the direction they're taking in trying to appeal to the pinball audience. Bally's *Medusa* is an exciting machine with some novel twists and Williams, too, is readying some surprises.

So, the race is on and everyone seems prepared to last the distance for what has been a period of growth and an expanding use of available technology for pinball machines that have been different, unique in the history of the industry and a portent of things to come.

As for me, it's time to get back to the contemplation of impending fatherhood the second time around. So until next time, be well and prosper.



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Voices, fun and foreboding

Centuri, Inc., has just completed another licensing agreement with a leading Japanese firm and will manufacture *Vanguard*, a new video space game.

The agreement with the Osaka-based SNK Corp. (Shin Nihon Kikaku) gives Centuri the exclusive rights to manufacture and sell *Vanguard* in North, South, and Central America and the Caribbean Islands, said Centuri President Ed Miller in a recent announcement.

In *Vanguard*, players must traverse 12 tunnels (or rounds), each containing several stages of play. The first tunnel alone contains eight playing stages, and the number varies with each remaining tunnel.

"Bon Voyage!" bids *Vanguard's* commanding voice as play begins at the opening stage of the first tunnel, which is bordered by mountains of blue and green-hued cubes, enemy forces attack. The spaceship protects itself with its four-directional missiles and by passing through the "Energy Zone." Once "energized," it is able to withstand crashes into enemy rockets and missiles and the bordering mountains.

Succeeding stages are increasingly more difficult and more rewarding as points increase with the added danger. Through the blue and white rocky canyons of the Rainbow Zone, the orange and green peaks of the Stick Zone, around the mountains of the Stripe Zone with its city of enemy bases and barriers, the spaceship accounts one threat after another, and must overcome them all to avoid being destroyed.

Finally, the player's ship enters stage VIII, the Dock Zone ruled by the enemy Gond. When Gond is successfully attacked and destroyed a commanding voice booms out: "Congratulations." The spacecraft is then cleared for the start of another tunnel.

Centuri, Inc. is a Hialeah-based manufacturer of high-technology video games and other electronic devices.



Fay Wray's new video

Nintendo's newest electronic video game, *Donkey Kong*, offers players a unique and fun-filled change from the plethora of space adventure games on the market.

Donkey Kong has become the best-selling video game in Japan and test marketing in the United States has proven it to be extremely popular with men, women and children of all ages, according to Nintendo.

Loosely based on the theme of "King Kong," this original game is unlike anything around. As Donkey Kong climbs to the top of a building structure carrying a pretty girl in his arms, he is chased by a little man who is trying to rescue her. As the little man climbs to the top, he must avoid the barrage of obstacles that come his way—fireballs, attack vessels and exploding barrels being thrown at him by Donkey Kong. To add to the amusing action on the screen, Donkey Kong runs back and forth, beating his chest with joy, especially when he is able to hit the little man with one of his barrels.

As the pursuer is bombarded with obstacles in rapid-fire succession, he must escape by jumping over them or fending them off with a hammer he finds on the structure. Extra bonus points are awarded for direct hits with the hammer. Also, the faster the little man gets to the top, the higher the score.

Donkey Kong has four different play boards with varying degrees of difficulty. One or two persons can play and each gets three little men per game. However, the operator can adjust this number at his discretion, to provide up to six men per player. Operator flexibility is further enhanced by the ability to award an extra man at any of the following levels: 7,000, 10,000, 15,000, or 20,000 points. Adjustable coinage from 25¢ to \$1.25 is also possible. *Donkey Kong* is available in 3 models: upright, cocktail, and cabaret.



Kermit green with envy?

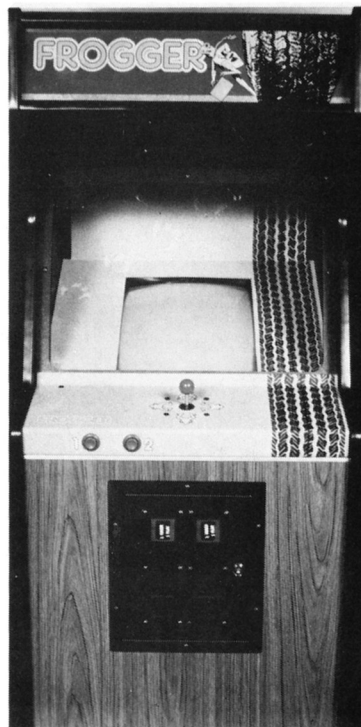
With Sega/Gremlin's latest computer video game, *Frogger*, players meet some unique challenges from a frog's-eye point of view.

Frogger is a one- or two-player, MultiPhase video game designed to appeal to players of all ages. Music, "frog sounds," and vivid, complex color contribute to *Frogger's* entertaining play.

Players race the clock as they attempt to guide, in succession, intrepid frogs safely across a busy, four-lane highway and treacherous river to their abodes. Along the way, frogs must dodge whizzing cars and hop aboard swimming turtles and floating logs.

The skill level of this Sega/Gremlin game increases with each successive round. The pace of highway traffic accelerates and deadly snakes, otters, crocodiles, and diving turtles appear to imperil *Frogger's* progress.

Players score points for each safe jump and each frog which reaches home within the time allowed. Bonus points are scored for escorting home a lady frog, consuming insects, returning all frogs safely home.



Pin-shooting at the black hole

"Flash Bank," "Black Hole," "Solar Target," "Solar Gun," and "Alien Eject" are among the weapons players must utilize to control the action on *Solar Fire*, Williams' new multi-level, multi-ball pingame.


Conquering Williams' unique, high scoring "Flash Bank" is the first challenge that players face. The top level playfield four-bank drop targets feature a roving bonus lamp which cycles past scores of 20,000, 40,000, 60,000, 80,000, and 100,000 points. The test is to hit a target at the crucial moment when the light is flashing at its highest point level; this stops the light flashing on that score. Completing the entire bank within the time limit collects the lit score—up to possible 600,000 points.

Still on the upper level playfield area, completing the 3-bank targets advances the "Black Hole" value from 25,000 to 50,000 to Drain Shield. Fast shooting players can achieve even higher scores by knocking down the 3-bank while the timer light is on; this spots a letter in F-I-R-E for 20 seconds of double scoring across the entire playfield. Completing F-I-R-E lights the lower level Bullseye Target for Special.

Moving to the lower level, the "Solar Target" located by the left lamp is the player's next objective. Hitting the "Solar Target" while the lights cycle lights a letter in S-O-L-A-R for a progressive Bonus Multiplier of 2X to 6X for each letter achieved. Completing S-O-L-A-R allows automatic Extra Ball.

Players would then utilize their "Solar Gun" to shoot down the *Solar Fire* menace. Complete either lower 3-bank within the time limit to advance the "Solar Gun" timer 3 seconds, 5 seconds to 10 seconds. Hit the "Solar Gun" charger to activate the captive ball and score 10,000 points for every second the "Solar Gun" shoots.

Having arranged the playfields for the highest possible scoring, players can set two or even three balls loose for Multi-Ball play by continuing to concentrate on the lower level 3-banks. Completing a bottom 3-bank at any time during play, randomly lights one of the three "Alien Eject" holes for multi-ball play.



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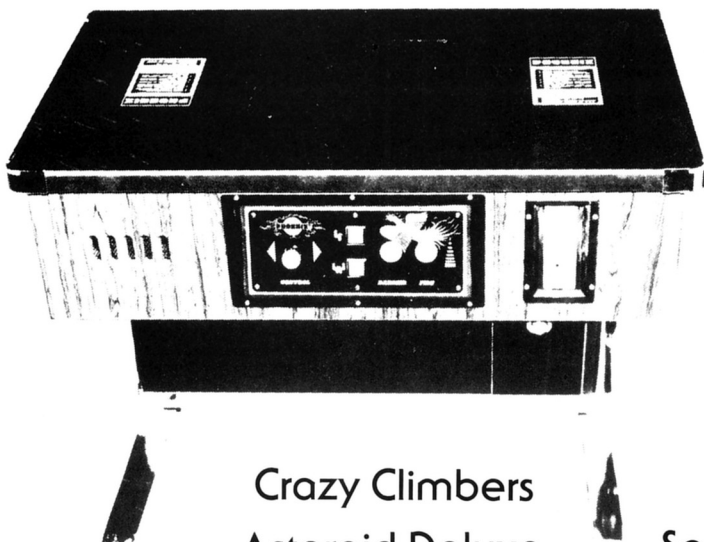
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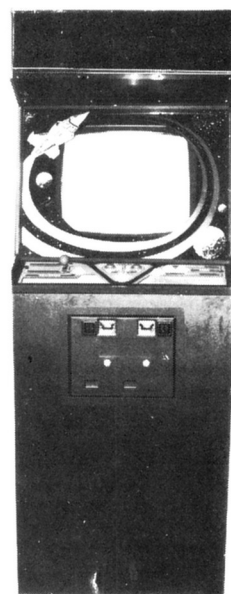
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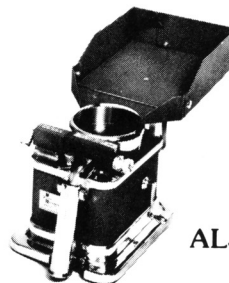
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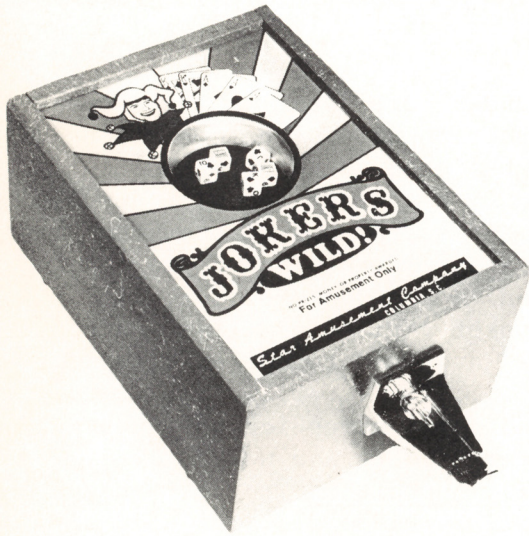
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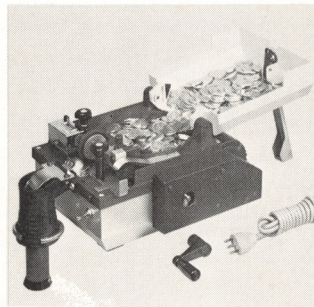
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.....The Ohio Supreme Court has taken under consideration the issue of "gray area games," and a lower court injunction allows the operation of the gaming-type devices until the matter has been decided in the high court. Mills-Jennings appealed the decision by the State Court of Appeals against gray area games. The coin-op amusement sector has opposed the gray area games, and spokesmen for the industry said they hoped the State Supreme Court would broaden the opinion in the supreme court, to encompass more gaming-type videos than the poker variety. Mills-Jennings, meanwhile, stands to have the case go in its favor and for poker videos to be ruled amusement devices.....

.....Video Slot machines, blackjack, and poker games for revenue-raising lottery shelved by the states of Massachusetts and New York. Massachusetts officials cited "mounting public opposition" and terminated a contract with Bally Manufacturing to install 20 video slots on a 90-day trial basis. In New York State, the issue wasn't settled by mid-September, but the State Attorney General in a formal legal opinion September 8 said that the video gaming devices which had been planned, did not fall within the authority of the state to operate as legal lotteries. Meanwhile, the company that had been contracted by the state to operate the games, Syntech International, Inc. of Dallas, was reported by the *New York Times* to be considering suit against the state because the company already had invested \$65,000 in the aborted gaming project.....

.....The Ohio Music & Amusement Association announced the first of its series of "Mini" Service Schools. The first, October 9-10 was to be held at the Harley Hotel South, Independence, Ohio, to be followed on October 13-14 by a school at the Holiday Inn, Findley. OMAA members have a priority on the 30-student limited registration for these and future "mini" schools, but interested persons may contact OMAA offices, Columbus, 614/221-8600.....

.....Ed Tober has been appointed vice president and chief accounting officer of Game Plan, Inc., of Addison, Illinois. Tober will have increased responsibilities and will report to Darrell G. McCollough, president, and Chris Reehl, vice president/finance.....

.....Empire Distributing, Chicago, announced the promotion of five of its personnel to vice president posts. They are E.R. Barth, to vice president/finance; Robert Rondeau, vice president/general manager, Green Bay office; Richard Dugan, vice president/general manager, Indianapolis office; Henry Heiser, vice president/general manager, Livonia office; and Harold LaRoux, vice president/general manager, Wyoming office.

.....General Vending, Lutherville, Maryland distributorship, threw a party for an October 4 recognition of its customers' support. The Sunday cocktail buffet was held at Chestnut Ridge Country Club.....

.....Irv Ovitz retired September 30 after 20 years as vice president of vending at World Wide Distributors, Chicago. Ovitz had a total of 44 years' tenure in the coin industry and was very familiar to vending operators in metro Chicago, downstate Illinois, and Indiana and Iowa counties served by World Wide. Fred Skor, president of World Wide, said: "Irv will be sorely missed, and we wish him well.".....

.....Gary C. Wilkin has been appointed sales and service representative for Coin Acceptors, Inc. in its Denver office. Wilkin will cover western Wyoming and Colorado as well as Utah to serve CoinCo customers in vending and servicing of coin equipment.....

.....Dr. John R. Minarcik of Rockville, Maryland has claimed the highest record score to date on the Carnival video game. He accumulated 210,420 points on August 15 at the Prism Amusements center in Rockville while working on his fifteenth bear in one game.....



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