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THE ROLLY POLLY PLACE

Where is the State of the Art?

BY

JOHN F. ALLEN

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THE ROLLY POLLY PLACE

Where is the State of the Art?

**BY
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Are theatre owners doing all they can to attract the greatest possible audience? When it comes to sound, where is the state of the art? BOXOFFICE contributing writer John F. Allen offers some of his thoughts.

I must confess that the main title of this article doesn't make any sense, but I'll get to that later. Every once in a while it's good to review where we are in relation to where we either could be or should be. This can be true of many things, from personal relationships to business positions. Of course I am not going to discuss relationships, but is exhibition positioned where it needs to be to face the challenges of the future? Now that it's been 18 years since I produced the first digital sound presentations in commercial movie theatres, and 13 years since digital soundtracks began to be printed on motion picture film, it's as good a time as any to review how well the industry has positioned itself to exploit the lure of digital sound.

Most, if not all, first-run theatres were converted to one digital sound format or another relatively quickly after it became widely available. JURASSIC PARK alone accounted for over 1000 installations of DTS players. Today, most films are released in the "Quad" format with DTS time code, Dolby Digital, SDDS and analog soundtracks all available on the same print. As such, exhibitors can choose which digital format to install in their theatres. While many theatres are equipped to play all three digital soundtracks, most are equipped to play one or two. Some are wired for portable digital processors so that only one will be hooked up at any given time.

Portable Processors

The use of these portable processors on wheels needs to be reexamined. The idea of assigning only one processor at a time to a particular auditorium makes perfect economic sense. Indeed, it seems almost mandatory. Why incur the capital expense of installing three processors when only one will be used for any given film? It makes more sense to simply connect one selected digital decoder or player to the digital input of the main

cinema processor, and use the others elsewhere. Of course, to make this work, the sound systems in all the theatres must have matched levels. While there are no audio adjustments for the Dolby DA-10 or DA-20 digital decoders, there are adjustments for both the DTS and SDDS units. These must be matched in such a way that all the sound levels of all the channels will match in all three digital formats in all the theatres in the complex. In my experience, the truth is that this has rarely been accomplished. As a result, audiences are unlikely to hear the film the way they should.

When moving digital processors from house to house, just how severe can the mismatched levels be? In one multiplex I visited, the installing technician had made such a mess of things that the DTS subwoofer level changed a full 18 dB when a DTS unit was moved between two adjacent theatres. In neither theatre was it set correctly, but in one of the auditoriums the subwoofer level was utterly out of this world. In another complex a visiting technician set one of the portable DTS players 10 dB higher than the others. When I suggested that he redo it, he still made it 6 dB higher than the rest.

**Perhaps it's time to throw
the wheels away.**

SDDS processors each contain full equalization and level controls. They should never be used as portable devices for two reasons, the first of which should seem rather obvious. The Sony DFP-2000, DFP-2500 and the DFP-3000 units were all designed as complete digital processors. Their outputs are intended to be connected directly to the power amplifiers or electronic crossovers, not to be fed into another redundant processor. Doing so introduces a noticeable loss of sound quality. To add insult to injury, the subwoofer signal from the SDDS player will not track properly when passed through another cinema processor with its own subwoofer processing. We either must endure a subwoofer being too loud when the signal is high, or too soft when the signal is low. In either case, it is never where it should be.

Sony did provide a solution. A special box could be connected to the DFP-2000 that would store up to eight house equalization and level settings. When the processor was moved, one pushed a button to command the unit to use the correct settings for that house. Unfortunately, this was not always used. If it was, the chance for error could be high in some theatres.

Perhaps the silliest, not to mention expensive, installation practice encountered is the connection of a Sony DFP-3000 to the input of another full cinema processor. In addition to suffering the problems just mentioned, using two processors is costly and wasteful. Then there are the formatting issues. In the event of a digital soundtrack problem, the SDDS unit is designed to revert to its own analog input, not to another processor.

Without extra wiring, if there was a reversion, the sound would mute -- brilliant.

Fortunately, the days when prints arrived with only one digital soundtrack are mostly past. The majority of today's releases come with at least two if not all three digital formats. Exhibitors can now permanently install their digital processors. By distributing them equally among the theatres of different sizes, one can always assign prints according to the format(s) in which they are made. If there are not enough processors to go around, leaving the Dolby Digital units portable makes the most sense. These units can go from house to house without compounding audio differences. The sooner this is done the better, as this will eliminate any level, channel balance and subwoofer tracking differences between houses.

Moving digital processors around is something the industry probably needed to go through. As I said, the economics exhibitors faced eight years ago demanded it. But perhaps it's time to throw the wheels away.

Amplifiers and Speakers - How Good Are They?

How Good Do They Need To Be?

Beyond the digital processors themselves come the amplifiers and speakers. If I were to grade the ability of most of the amplifiers and speakers I encounter to accurately and fully deliver the true potential of digital motion picture sound, I would have to give them a C-. Some theatres would get an F as their speakers and amplifiers were not upgraded when digital was installed. But there are many more where new speakers and amplifiers were installed. However, when one evaluates many of these installations, an honest assessment would have to note the dull sound, the lack of clarity, the lack of coverage, the inadequate subwoofer systems, the surrounds that are barely audible and the background hum. In general, such sound systems are simply too small and thus prevent the full enjoyment of today's often beautiful digital mixes. On the bright side, dialogue intelligibility has steadily improved from where it was 18 years ago.

Modern cinema complexes have evolved over the past decade. One grand opening after another presents the moviegoing public with attractive exteriors, comfortable lobbies and enhanced concessions that include cafes with pleasing menus. The auditoriums include stadium seating, extra comfortable chairs with generous legroom and wall-to-wall screens. I'd give all of the new complexes I've visited in the past few years an A in these categories.

While not always as good as it could be, with a notable lack of 70 MM presentations, the image quality found in modern theatres is significantly better than it used to be, thanks to improved film stocks, reflectors and lenses as well as larger lamphouses. However one

may want to describe any shortfall in image quality, if there is one, it is the sound that lacks the most. Indeed, modern car stereos can sound better than the sound systems in some brand-new theatres.

Home Theatres

This is a most unfortunate situation as the explosion of the DVD format has given consumers at home the opportunity to hear the same (or better) discrete six channel digital sound format available in theatres. Modern home theatre sound packages can often surpass the satisfaction and enjoyment available in many theatres. Surveys of home theatre owners indicate that the majority believe that they do indeed hear better sound quality at home versus their local theatres. Exhibitors who failed to install big enough sound systems, missed the opportunity to get out in front of the home theatre and DVD revolution.

We crave beautiful sound from wherever it comes.

Home theatre owners, including some I know in this industry, typically claim that they prefer watching movies at home. In addition to the lack of commercials and loud trailers, not to mention

the general hassle involved just in going out, they simply like the comforts of home. Fine. But exhibition should put up a better fight.

With the coming of HDTV, exhibition faces yet another challenge to the notion that theatres are the preeminent venue for seeing movies. While some films are now beginning to become available in HDTV, it will be a while before this format is widely adopted. But if there is any doubt that home theatre is on its way to surpassing movie theatres, last January's Consumer Electronics Show presented several new and improved video displays that were good enough to astonish many of those attending. However, many felt that there was nothing notably new in sound. Maybe that's a good thing as there are already too many people who believe that their home theatres sound better than movie theatres.

In my opinion, despite the advances in home theatre technology, exhibitors still have an opportunity to increase the appeal of their theatres. A primary area where significant potential for improvement remains is sound quality. Music and subtle sound effects can sound so much richer and engrossing than most moviegoers ever get to hear. Done well, a crystal clear sound system capable of great power and delicacy at the same time can change completely our connection with the film. The next time you want to listen to your favorite tunes at home, try switching your stereo to mono to remind yourself about how much enjoyment goes away when something is missing.

Recently I visited a new cinema complex. The entrance as well as the lobby were as inviting and attractive as they could be. They would certainly deserve an A for design and cleanliness. The auditoriums were equally comfortable and appointed with all the things one has come to expect in a modern theatre. The picture quality was first rate -- bright, focused and steady. However, the sound was notably inferior. In addition, it was so loud that I saw at least one patron cowering in her seat. In fact, there weren't any happy faces in the audience that day. Personally, I would never sit through a show that was played so loud, no matter what the quality of the sound. If the features were too loud, imagine what the trailers must have put those people through.

Is it any wonder that we hear so many complaints about excessive levels and bad sound? My most recent article in the February 2003 issue of BOXOFFICE, tackled the subject of high sound levels and what technicians can do to avoid them.

With the coming of HDTV, exhibition faces yet another challenge to the notion that theatres are the preeminent venue for seeing movies.

Many have asked me about how good their sound quality needs to be. The answer is good enough to attract the greatest number of patrons. How good is

that? Consider the cases of two single screen theatres both located in small Midwest towns. The first is the Lorraine Theatre in Hoopeston, Illinois (<http://www.lorrainetheatre.com>). This theatre was totally run down and all but out of business when it was purchased by Greg Boardman. As a boy he had attended this hometown theatre and had dreamed of owning it one day. Even though he had moved to California and was working for NBC, he acquired the theatre and began upgrading the building as well as the presentation. Living in the Los Angeles area, Boardman attended movies in LA's best theatres. When he heard the sound at the Century Plaza Theatre, he decided that was what he wanted. To be certain, he took several trips around the country over the next year to hear other new sound systems. When he was sure of his choice, he went ahead and installed our top-of-the-line XL class system. Over the years, he has added two digital sound formats and upgraded the sound system to eight-channels. A few years ago a second screen was added.

In my estimation, Greg is one of the best promoters in the business. Perhaps this is best exemplified by the time he wrapped a wrecked car around the light pole in front of the theatre and placed a smoke machine under it -- all to promote the opening of TWISTER. On another inspired occasion, Greg's was probably the only theatre with World War II airplanes in the air to promote the opening of PEARL HARBOR. A Japanese Zero that was used in TORA TORA TORA, and a P-40 did a seven-minute mock dogfight over the theatre. The maneuvers ended with the P-40 "shooting down" the Zero with simulated

smoke coming from the Japanese plane. In addition, a World War II air-raid siren was shipped in and the staff dressed up in World War II uniforms. Honestly, I don't know how he does it.

Boardman has never let up in his effort to advertise his theatre as the "The Best Place for Movies." One can even purchase an advanced reserved seat on the theatre's website. All this has paid off. Since the people in this small town usually like to get out of town when they go out, the Lorraine has had to survive by drawing from the surrounding area. By surrounding, I mean as much as 100 miles away. Indeed, people do make the trip. New faces still show up every week. They drive, often for hours, past the multiplexes in larger cities and head for the superior experience at the Lorraine. One patron's comment is typical of the customer feedback, "Taking a 40-minute drive to enjoy the experience of a movie at the Lorraine is infinitely better than a 4-minute drive to watch something at a generic strip mall theater."

Attica, Indiana is another small town that had a rundown single-screen theatre called the Devon. Things were pretty bad. The building was literally falling apart. Many nights went by when no customers would show up at all. Local restaurant owner and businessman Robbie Criswell realized that the theatre was essentially out of business and would close forever if something wasn't done. After a visit to the Lorraine, Criswell decided to buy the Devon and totally refurbish the building, including a new party room. Like Greg Boardman, he decided to install our XL class sound system. When the theatre reopened there weren't enough seats to accommodate the crowd that came to see and hear. Like the Lorraine, the Devon needs to be able to draw from the outlying communities, particularly the college town of Lafayette, some 30 miles away. Today this theatre has become a destination for moviegoers all around. Criswell is now planning to sell his restaurant.

Anyone wondering how good their presentation, especially their sound, needs to be can take some comfort in these two success stories. If small-town single-screen theatres can attract customers away from newer multiplexes that are closer to their homes and even out-gross the competition, it would seem to prove the point that there is no substitute for superior quality.

I encourage those attending this year's ShoWest convention to make a special effort to learn everything possible about better sound and how to achieve it. After all, people are willing to spend ten times the cost of a movie ticket to attend a concert, a hundred times more for the premium sound package in their cars and then drive those cars over 100 miles to see a movie in a great theatre. We crave beautiful sound from wherever it comes.

The Rolly Polly Place

As for the title for this article: When I started kindergarten, I met two girls that lived across the street from our school. It just so happened that the bushes behind their house made a sort of natural tunnel that was about 15 feet long and we were just small enough to fit through. The far end of this almost hidden tunnel led to what seemed like a long winding path that ended at the top of a small area of beautiful green grass covering a narrow hill. Surrounded by trees, carefully trimmed shrubbery and wrapped with sky, we felt as though we had somehow found our own hidden sanctuary. Perhaps it wasn't the same as the "second star on the right and straight on 'til morning" route to Neverland, but it was a lot quicker. Once in a while after school, we used to escape through our "secret" tunnel and spent our time rolling down our private little hill.

I can still hear the sound of our laughter. It was just the three of us. No one ever found us or told us to go home. For a short time, until they moved away, it seemed like the happiest place on Earth -- almost magical -- the kind of scene that might one day inspire little children to become future poets. I have never forgotten it nor its innocence. Before they suddenly went away, my friends decided to call it the Rolly Polly Place. After that, I would sometimes go there by myself. But it wasn't as much fun to be there alone -- and then there was the silence -- so I stopped going.

Even all these years later, when I see this place I remember the warm sense of enchantment and escape that the three of us shared so long ago.

As usual, I must have been thinking about business the last time I drove by, because it reminded me of the goal I think every one of us in the escape business is working daily to achieve -- to provide an environment and experience capable of creating a lasting favorable impression that will motivate customers to return over and over again. From my vantage point, the clarity and beauty afforded by digital soundtracks, not to mention the music within them, are indispensable key elements in creating such an experience in motion picture theatres. In my view, based on the poor sound quality I encounter when I visit some brand-new theatres, while the potential is there, exhibition has yet to take full advantage of this valuable resource.

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John F. Allen is the founder and president of High Performance Stereo in Newton, Mass. In addition, he serves as the sound director of the Boston Ballet. He is also the inventor of the HPS-4000® motion picture sound system and in 1984 was the first to bring digital sound to the cinema. John Allen can be reached by E-mail at johnfallen@hps4000.com.