



AUDIO ENGINEERING SOCIETY Los Angeles Section

www.aes.org/sections/la/

November 30, 2004 MEETING NOTICE

Meetings are free.
Guests are welcome.

AES Los Angeles Section: Geoff Christopherson, la_section@aes.org
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AES LA Section Officers and Executive Committee

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Monthly section meeting November 30, 2004:

Distributed Audio System Design and Control

Recently, distributed audio systems and networks have gained popularity due to advances in technology and their diverse hybrid applications. New products and technologies have emerged from the need for "smarter" and more useful systems for both commercial and residential applications. At the forefront of these development have been the familiar industry pioneers, including such companies as JBL, Sonance, and AMX.

This month's meeting features a panel of industry experts, each of whom will discuss the latest practical methods and theories of system design and control. Rick Kamlet of JBL Professional will discuss commercial systems and applications. From Sonance, innovators of the residential "in-wall" market, Tony Trimble will explain the premises of effective system design, home theater, and structured wiring applications.

Our November meeting is sure to offer an interesting and fun look at the most significant aspects of distributed audio systems today.

Presenter's bios

Rick Kamlet has worked for JBL Professional since 1991, currently as senior director of commercial sound and previously as senior director for commercial and engineered sound and senior product manager. Previously, he was with TOA Electronics. In the area of distributed sound systems, Rick authored JBL's *Designing Better Sounding In-Ceiling Business Music Systems* book and JBL's Distributed System Design software. He has also written technical articles for various trade magazines. He has taught courses on distributed system design privately for various system design firms, as well as in educational certification programs. He is also a former executive committee member of the AES Los Angeles section.

Tony Trimble, western regional product specialist at Sonance, has worked in the home audio/video electronics industry for over 25 years. He began his career in audio with a leading speaker manufacturer in the late 1970s, moving on to designing and selling A/V systems at several highly regarded retailers. Tony joined the custom installation industry in the 90s with an eight-year run at Xantech as a product specialist and trainer. As a result of his diverse background, Tony has extensive knowledge in IR control, multi-room and distributed audio systems.

Tom Wingate, manager of international training at AMX, has been in the A/V industry for over 17 years. He holds BSEE and BS in Business Finance degrees. He began his career with Martin Marietta (now Lockheed Martin) in 1987 as a telecommunications engineer, and his first assignment was to help build a nationwide video conferencing network. This project got him involved with audio, video, and control systems design. Since then he has worked for several A/V systems integrators where he designed hundreds of systems. He recognized early in the game the trend towards the integration of A/V and data networks and took the necessary CISCO and Microsoft training to become capable of designing complex data networks. To round out his expertise, Tom learned various programming languages, including Java, Visual C++, Visual C#.net, and AMX NetLinX. He started his own A/V consulting business in 1997 and handled projects for such companies as US Sprint, Lockheed Martin, Shure Brothers Audio, Dupont, Computer Sciences Corporation, and the Office of National Drug Control Policy.

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MEETING DATE: Tuesday, November 30, 2004. **PLACE:** The Sportsmen's Lodge, 12825 Ventura Blvd. at Coldwater Canyon, Studio City.
TIME: Social 6:30 p.m., Dinner 7:00 p.m., Meeting 8:00 p.m. Dinner cost is \$20, or \$15 if you make a reservation at least 48 hours in advance with the section treasurer, Tim Shuttleworth, at tshuttle@harman.com or +1 (818) 754-4753.

Meeting recap: October 26, 2004

Sound for Games

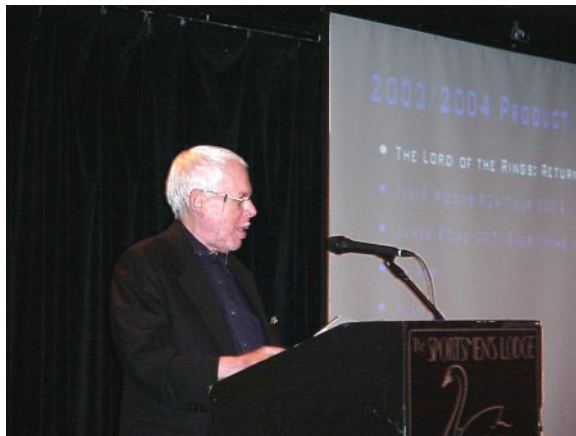
by Geoff Christopherson

Even if you are not an avid video game player, you probably would agree that Murray Allen shed a lot of light into the world of game sound by describing the recording process, production, testing, and examples of final products. By the end of the meeting, I felt like running out to buy a game console and a few EA titles to dig into the details of what Mr. Allen alluded to.

Mr. Allen's vast experience took us across the globe to record soundtracks for movie-based games, dialogue for sport games—e.g., football, basketball, hockey—and even a marching band in Russia, which nevertheless lent an authentic aura of collegiate teams' fight songs as you might hear them played in a sports arena or stadium. All of these efforts lead to a more lifelike, enveloping experience for people playing and watching video games. Music for movie-based games (*Goldeneye (James Bond)*, *Terminator*, *The Lord of the Rings*, etc.) is rerecorded whenever possible using the same music conductor, composer, and musicians to preserve the same audio character as the movie. Also for consistency with the movies, EA hires the original actors for the English version, as well as the same actors that were used for the foreign-language dubbing in French, German, and Spanish.

Dialogue for sports games is recorded in short snippets that are numbered for integration into the software. Imagine a recording session where the entire script comprises short phrases, such as "1-yard line," "2-yard line," "3-yard line," etc., in soft, medium, and loud volume! All of the players' names must be recorded,

too—both soft and loud—as well as common phrases of the game like "catches the ball," "passes the ball," "fumbles the ball," etc. Each recording must be accurate and consistent in length, intensity, and background noise level, and must also be properly documented so the right phrases, words, and names will play at the right time in the correct sequence. Since there are many details that have to be looked after, the producers and engineers have developed a number of techniques to facilitate their jobs. First, the actors' voices are recorded at long distances in very quiet rooms to so that changes in the talent's head position has a minimal impact on the quality of the recording. In situations where the actor must move around, a close head microphone is used. One complication of translating games into different languages, such as French, German, and Spanish, is that unlike English, their nouns have gender and also may change somewhat with grammatical case. An English version of a game may typically contain 36,000 different separate voice recordings, each labeled for identification and recall by the game program. For the software to work equally well with other languages, they have to be similar in quality and length. In multilingual



games, the English version is recorded slower so languages using more syllables can say the same phrase in the same amount of time as the English version without sounding rushed. EA designed recording studios in each country that allow them to maintain the same audio quality among the different languages.

Surround sound has been a part of video games since *Road Rash* in 1994. Pro Logic II has been the standard of choice for all music and streams allow the most consistent products and the most creative freedom for the designers. All sound effects are mono for panning in an XY grid for maximum movement left to right and fly-overs. Dolby Digital and DTS are available in a limited number of games, but encoding in software takes more processing power, which makes video quality suffer. Most gamers are more attracted to high quality images rather than the audio (they're usually listening through a TV, after all!), and have expressed that if the video is bad, it doesn't matter how good the audio is.

Murray Allen gave many sidebars on his travels and adventures through audio and concluded with a sample of last year's Grammy Awards show.

Technology has moved surround into everything, including live sound. Although technology has its challenges in this application in these early stages, surround sound will continue to become a standard for home entertainment in games, movies, and live events.

The Los Angeles section would like to thank Murray Allen for his highly informative and entertaining visit, and Geoff Christopherson for organizing the meeting.



Distributed Audio System Design and Control

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Tom moved to the West Coast in 2000 to design the backend systems to acquire H.320 videoconferencing from major telecommunications carriers and convert it to streaming media over the Internet. He joined AMX in 2001, a leading manufacturer of A/V control systems, in their Costa Mesa, Calif., branch office and travels the world training AMX dealers and distributors how to design and program AMX control systems.



Get the latest in AES-LA news and information at <http://www.aes.org/sections/la/>

The AES-LA Job Board *A free service of the Los Angeles section of the AES*

Acoustic Analyst

Join this highly educated scientific staff focused in R&D developing innovative concepts, signal processing and algorithms for complex measurement systems. Primary focus in the San Diego corporate office is acoustics and radar emphasizing high resolution imaging, signature exploitation and environmentally adaptive processing.

Acoustics/radar analyst supports advanced research efforts for military/civilian applications regarding remote detection, localization and recognition. While this position does require proficiency in C, C++, MatLab and UNIX along with knowledge of DSP techniques/concepts; the activity is not design/development oriented but rather analysis, modeling and simulation. Signal processing, detection theory, pattern recognition and performance analysis are implemented as part of the analysis effort..

Skills/Experience: 4+ years experience (may include educational experience) in signal processing, detection theory, pattern recognition and performance analysis. Knowledge/proficiency in C, C++, MatLab, UNIX, and DSP techniques/concepts is required.

Education: BS in Physics, Electrical Engineering or Applied Mathematics. MS or Ph.D. a plus.

Additional: US Citizenship required. Must be able to obtain a security clearance.

Contact Bill Caseley at Aspire Group; E-mail: bcaseley@aspiregroup.net; Telephone: +1 (858) 320-8843; 1-800 487-2967

AES Election Results

At the 117th convention, these results of the society's 2004 elections were announced by Christopher Freitag, chairman of the AES board of tellers:

President-elect: **Neil Gilchrist**

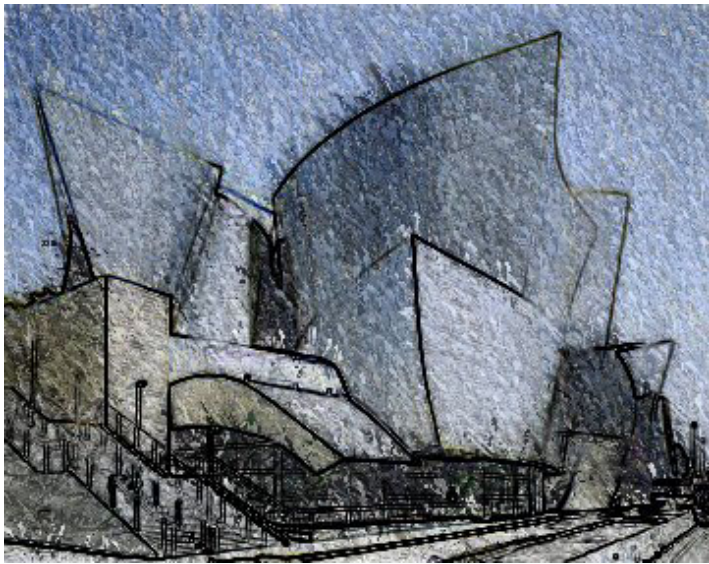
Secretary: **Han Tendeloo**

Treasurer-elect: **Louis Fielder**

Governors: **Ronald Aarts, Ulrike Schwarz, and John Vanderkooy**

2004 Bylaw Amendment Proposal: **Passed**

AES-LA Holiday Event: A Latin Christmas



Wednesday, December 22, 7:30 P.M. at Walt Disney Concert Hall, with **Juana Molina** (a favorite among KCRW listeners), **Kinky**, and LAs own, Grammy winners **Ozomatli**. The LA section will have 80 balcony tickets available for purchase by members and their guests. Watch www.aes.org/sections/la/ for more details.

Pricing

Students: \$15

AES members: \$20

Non-members: \$30

For example, if you're an AES member buying tickets for yourself, a non-member guest, and a student, that would amount to \$65.

Availability

We will give AES members and student members first shot at the tickets, so we will not fill orders from non-members until Friday, December 3. Please provide your member number when ordering.

We help ensure availability to everyone, we will restrict the number of tickets per order to **three** until December 14, at which point we will accommodate any larger orders that we still have tickets for. If you need more than three and cannot wait until that date or need a sure thing, we urge you to buy tickets through the WDCH box office.

How to order

Online: Tickets will go on sale to AES members and student members on November 26 on the section Web site. Through PayPal, you can pay with a credit card—or your PayPal account, if you have one. On December 3, we will add options for orders from non-members.

Meeting: AES members and student members can buy tickets at the November 30 section meeting with a check or cash for the proper amount.

Mail: Send a check or money order for the proper amount to Bob Lee, c/o QSC Audio Technical Services, 1665 MacArthur Blvd., Costa Mesa CA 92626.

Pre-concert dinner

Executive committee member David Scally is arranging for an optional pre-concert dinner at a nearby restaurant. Nothing is firm yet at this date; you can contact David at descallyjr@aol.com for more information.

Upcoming AES and AES-LA Events

November 30, 2004	<i>Monthly meeting:</i> Distributed Audio System Design and Control	Sportsmen's Lodge, Studio City
December 22, 2004	AES-LA Holiday Outing: <i>A Latin Christmas</i>	Walt Disney Concert Hall, Los Angeles
January 25, 2004	<i>Monthly meeting:</i> Control Surfaces	Sportsmen's Lodge, Studio City

With nearly 1,000 members, the Los Angeles section is one of the Audio Engineering Society's largest and most active. Don't miss out on the section's activities; check the web site at <http://www.aes.org/sections/la/>.

You can save money for the section by receiving this newsletter by e-mail instead of regular mail. Send your e-mail address to section secretary Geoff Christopherson, la_section@aes.org.

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c/o Lori Jackson, Section Administration
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New York, NY 10165-2520

RETURN SERVICE REQUESTED

FIRST CLASS MAIL

<i>Meeting date: November 30, 2004</i>
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