



# AUDIO ENGINEERING SOCIETY, INC. SAN FRANCISCO SECTION

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## DVD Takes Spotlight As Divx Hides

The lack of fanfare surrounding Digital Video Express, or Divx, at the Consumer Electronics Show in Las Vegas was surprising, considering the product hype that characterizes the show every year. Divx is the creation of retail giant Circuit City and a Los Angeles entertainment law firm, and has caused one of the loudest and nastiest wars among home videophiles. Nowhere was that ill feeling more obvious than at CES. Circuit City CEO Richard Sharp has become a lightning rod for anti-Divx sentiment, in part because of his callous attitude toward early adopters of the digital versatile disc, or DVD, Divx's main rival. Divx would render DVD players obsolete. Divx is essentially pay-per-view DVD, a video format that fits an entire movie onto a standard-sized compact disc. Divx players are expected to sell for around \$100 more than DVD players, which start at around \$400. Consumers must now buy DVD movies, since few stores rent them out. That's where Circuit City hopes Divx will come in. For \$5 to \$7, a customer can buy a Divx movie and watch it an unlimited number of times for 48 hours after the first viewing. After that, the disc can be thrown away. "I don't see how Divx can survive," said Jim Cardwell, executive vice president at Warner Home Video. Warner has been one of the earliest and most enthusiastic supporters of DVD, not taking a position for or against Divx. We're just going to support both formats."

Other consumer electronics vendors at the show had even less to say about Divx. Pioneer, Sharp, Sherwood, and JVC all said they were "evaluating" Divx's potential, but nothing more. When pressed, company representatives admitted they were unwilling to take a position on Divx because anti-Divx sentiment was so strong. The anti-Divx crowd aside, Divx just doesn't have the support it needs. Warner and Sony Pictures won't make Divx discs. Suncoast Motion Picture Stores and Tower Records will not carry the discs; Blockbuster has yet to make a decision. Best Buy, Circuit City's major competitor, is the biggest supporter of DVD and has no plans to carry Divx. "Divx has got a pretty tough road ahead," said Mike Grice, DVD product manager for Image Entertainment in Chatsworth, Calif. "Retailers don't want it, distributors don't want it, some studios won't support it. I haven't spoken to anyone who is pro-Divx."

Only Paramount Pictures has signed on to make Divx discs and to not support DVD. The Walt Disney Company has released live action DVD movies, but reportedly is saving its library of animated movies for Divx. One of the areas of contention between Divx and DVD concerns the DVD player, which won't play Divx discs, although the reverse is true. DVD vendors and owners feared it would confuse the marketplace and slow DVD's market penetration. The privacy issue seems to be the thorniest. "Divx is a mistake," said Simon Bender, vice president of Diplomat Merchandise, a consumer electronics distributor in Brooklyn, N.Y. "People don't want to give a manufacturer a record of the movies they purchased."

**AUDIO ENGINEERING SOCIETY, INC.**

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**MEETING NOTICE!**



# JANUARY MEETING



**Subject:** Virtual Surround 3D Audio  
**Speaker:** Ron Knapp, Medianix Semiconductor  
**Place:** Cogswell College, Sunnyvale  
**Time and Date:** January 27, 7:30 PM (refreshments at 7:00 PM)

Over the past several years there has been a lot of products with "3D" Audio. This kind of 3D provides spatial enhancement that can make two speakers placed close together sound like they are much further apart. There are many ways of doing this using filtering with some reliance on altering the phase of stereo signals. Depending on the process, the benefits include a much wider soundfield, resulting in good stereo without having to be directly in front of the speakers. Also results is the ability to place a specific audio image in a particular location however, all this was in a plane around the two stereo speakers. Recently, some new techniques have been developed that use much of the same technology to create audio images to the side and rear of a listener between a pair of speakers. Unlike "speaker spreaders" which can be implemented using simple analog circuits, this new "Virtual Surround" 3D audio is more complex, incorporating special types of filters called "Head Related Transfer Functions" which are modeled to simulate the human hearing system. Until now, the cost has been prohibitive for use in consumer electronics. But now there are some new, low cost DSP's dedicated to performing this kind of audio processing.

Several types of Virtual Surround algorithms will be presented, including some of the subtle differences between them, and which applications are best served by each one, including movies, multimedia, and stereo TV's. A description of the electronic hardware available will be shown, based on a new family of DSP's for consumer audio. Finally, there will be an audio demonstration of the Virtual Surround.

Ron Knapp is an Applications Engineer at Medianix, a 3 year old start-up in Mountain View that designs and manufactures DSP's for audio applications. Previously, he was an Applications Engineer at Crystal Semiconductor Division of Cirrus Logic where he supported that company's digital audio product line. Before that he worked as a Design Engineer, specializing in A/D and D/A converters at Analog Devices in Massachusetts, then at AMD and Maxim Integrated Products in California. Mr. Knapp holds a B.S. in Systems Engineering from Boston University and an M.S.E.E. from Worcester Polytechnic Institute, both in Massachusetts.

## Directions

**From the East Bay** - Take 880 to 237 west. Exit on Mathilda Ave. north. Turn right on the frontage road and then left onto Bordeaux Drive. The meeting is in the auditorium.

**From the Peninsula** - Take 101 to 237 east. Exit on Mathilda Ave. north. Turn right on the frontage road and then left onto Bordeaux Drive. The meeting is in the auditorium.

# COMING EVENTS

January 29 - February 1  
 Winter NAMM  
 Los Angeles, CA

February 4 - 8  
 Gavin Seminar  
 San Diego, CA

February 5 - 7  
 SMPTE Imaging Conference  
 Toronto, Canada

## JOB BOARD

Now Hear This, a leading manufacturer of high quality loudspeakers is looking for the following candidates: Mechanical Engineering Supervisor, BSME and minimum 4 years audio related experience. Production Engineer, BS in production engineering or related field and minimum 2 years audio related experience. NHT, located in beautiful San Francisco Bay Area, is an acknowledged leader in the audio loudspeaker industry. We offer an excellent package and a flexible work environment. Fax resumes to MS at 707-747-1237

InVision Interactive is a high-growth, venture funded, audio software company based in Palo Alto. With current sales of 5 million, InVision is pre-IPO and is aggressively adding to our team of thirty people. InVision develops and markets a line of music software products called "CyberSound" for music authors, web page developers, and professional musicians. We are currently seeking candidates for the following positions: Vice President of Software Engineering, Director of Software Engineering and Senior Audio DSP Engineer. Please see our web page for more details or forward your resume to: Vanessa Belland, 2445 Faber Place, Suite 102, Palo Alto, CA 94303-3316 Phone: 650-812-7380 x504 Fax: 650-812-7386 e-mail: vanessab@cybersound.com web site: www.cybersound.com

Additional job openings are posted on the AES web page.

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