

MEETING NOTICE!

AUDIO ENGINEERING SOCIETY, INC.
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AUDIO ENGINEERING SOCIETY, INC. SAN FRANCISCO SECTION

APRIL 1997

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The Future of Game Audio

About 65 people packed the conference room at the Foster City Holiday Inn to hear the panel discussion on game audio. After the introductions by Bob Megantz, each of the panel members gave a brief discussion on their expertise in game audio. The panel was comprised of leading music developers from

audio off the CD ROM which ensures consistent audio. Methods for streaming the audio and compression options were discussed. The point that was emphasized is that the designers of soundtracks for games must fully understand the limits and capabilities of the technology.

Dave O'Neal of Electronic Arts talked about a music sequencing engine they developed to modify the soundtrack based on the player's



some of the top companies that produce computer games.

The discussion opened with a talk by Brad Fuller of Matter to Magic on the evolution of audio in games. He began with a description of the original "Pong" game which derived its sounds from the video sync. He closed with description of advanced Wavetable synthesis found in some of the newest games.

John Paul of Atari Games discussed audio composing for several of their games. One of the challenges in the development of the Atari "Maximum Force" game soundtrack was to have the music loop undetectable when the hard disc was being accessed. A short sample of the soundtrack was played. In development of "Mace, The Dark Age", the game buffered the soundtrack in RAM to alleviate the disc access problem. "San Francisco Rush", used only ROM based wavetable music synthesis that was sequenced on the fly.

Tom Rettig of Broderbund talked about some of the problems with inconsistency in the quality of PC sound cards and the challenges it poses for the music soundtrack. This inconsistency has driven them to use streaming

moves. He went into detail about how MIDI sequencing modifications can be an effective tool in creating game suspense and changing the overall mood. A demonstration was shown on a Sega Saturn with the "Soviet Strike" game.

Mike Land of Lucas Arts talked about how the technology has improved but managing the interactive aspects of games are just as difficult. Writing the score of a game requires that the music change to match the activities but not appear obvious. When the player is idle in a game, the music must loop but not be detectable. Lucas Arts now develops games with only streaming audio off CD ROM to get around the inconsistency problems with PC sound cards. A tape was played with sound clips from various Lucas games.

Murray Allen of Electronic Arts ended the panel discussion with an overview of Electronic Arts' future directions for game soundtracks. Currently all their games that have streaming audio are using Dolby Pro Logic encoding. The emphasis of Allen's discussion was that developing soundtracks for games requires more than good composing skills but also good computer programming skills.



APRIL MEETING



Subject: Superconductor, an Interactive Interpretation Program

Speaker: Dr. Manfred Clynes

Place: Cogswell Collage, 1175 Bordeaux Drive, Sunnyvale

Time and Date: April 17, 7:30 PM (refreshments at 7:00 PM)

In SuperConductor, Dr. Clynes created an interactive program which enables users to discover the very nature of musical expression. The program allows users to control every aspect of a music performance. Start with the score of a masterpiece and build an animated performance according to one's own tastes and inspiration. The program allows for exchanging interpretations of masterworks or new pieces via email or floppy disk. Composers can have SuperConductor perform music precisely as they want it. The software interface provides creative control without the need for special knowledge, such as reading music

Dr. Clynes was born in Vienna, Austria. He studied music at Julliard where he graduated with a M.S and became an internationally renowned concert pianist. Dr. Clynes then became a neuroscientist and studied the communication channels of biological systems. In the 1960's he invented the CAT computer which measured the brain's responses to sensory stimuli. Dr. Clynes has written numerous papers and books including presentations to the IEEE and CNMAT. More detailed information can be found at www.microsound.com

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

April 6 - 10
NAB Convention
Las Vegas, NV

April 16 - 20
NSCA Convention
Charlotte, NC

April 25 - 29
Game Developers Conference
Santa Clara, CA

May 28 - June 1
HI-FI 97
San Francisco, CA

JOB BOARD

EuPhonics is a development firm specializing in digital music synthesis and digital audio for multimedia PCs. The following positions are open:

DSP Engineer. Candidates must be experienced in programming DSPs in assembler and have experience in the application of DSP theory to audio, electronic music, and psychoacoustics. Requires Bachelor's degree in EE/CS.

Windows 95 System Programmer. Candidates must be experienced in writing VxDs & DLLs for Windows 95 and familiar with the DirectSound DDK. Should be familiar with Sound Blaster, wavetable synthesizers, and MIDI. Requires a Bachelor's degree in EE/CS.

Digital Hardware Designer. Candidates must be experienced with VHDL/Verilog, firmware, familiarity with PC architecture including PCI bus. Bachelor's degree in EE/CS minimum.

Positions are available both at headquarters in Boulder, CO and in San Jose, CA.

Please send resume to resumes@EuPhonics.com or Personnel, EuPhonics, 4840 Pearl East Circle, Suite 201E, Boulder, CO 80301-6115.

See www.euphonics.com for more information.

Additional job openings are posted on the AES web page.

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