Minutes of AES TC on Audio for Games
October 9, 2005
AES 119th Convention, New York, NY

This meeting of the Technical Council was attended 13 people including members, guests and students. The areas of discussion included ways to expand and increase the presence of the game industry at the AES as well as topics in an open forum.

Comments and suggestions for increasing the gaming presence at AES:

- Host a Game Audio Panel (Master Class) similar to the Grammy's music producer's panel.
- Write a White Paper and/or host a Panel to discuss playback reference levels – compare industry practices but focus on game audio
- Investigate whether AES can supply an information booth, demo space, etc. on the show floor to promote game audio as an industry.
- Show cutting-edge tools for game development
- Show game engine development
- Give XACT and other tools demos
  - Other middleware
    - Gallery Software
    - Monkey Tools
    - Minnetonka
    - Audio Kinetic
- Host a Tutorial in tools for game audio
- Share a large booth space on the show floor
- People (other audio industries) don't take game audio seriously. Let's create awareness at the AES.
- Create awareness by contacting the press
  - AES Daily
  - Mix- AES Preview issue
  - ProSoundNews
  - harmony-central.com
- Host a Tutorial – What makes a game mixer different a music mixer?
- Provide topics on education in game audio
- Create an education forum – gamasutra.com

In the open forum, topics centered around the audio levels in games. Two primary issues dominated the discussion: Reference Level and Headroom.

Reference Level:
- Should it be set to conversational dialog?
- How does it affect dialnorm?
- "Dialog is King". Focus on the dialog level to set the reference level

- We should collect a set of papers already written on the subject to see what others have done before us.
- Need a template for paper presentations
- We should be consistent with other industries but meet our own needs.

Headroom:
- 20 dB. Or is it 16 dB, 18 dB? Many are used. Which is most common? Which is recommended?
- Headroom relates to reference level
- Are some games living in the top 10% of headroom like music mixers instead of utilizing the dynamic range of the platform.
- This concern is similar to TASA program for the movie industry. TASA tests and qualifies the average playback level of movie trailer. All MPAA approved trailers must pass TASA requirements (85 dB ave. playback level). Can this even apply to our industry? What is another approach?
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After the discussion in the open forum we discussed Sub-Committees:

As a Technical Committee we have the potential to influence audio standards and practices in the gaming industry through creating awareness and interest in topics within the AES. One path to effecting change is writing a white paper on a subject and then petitioning the Technical Council to explore the possibiltiy of creating a standard that could be adopted by the AES. This is a long process (i.e., years) that may result in an AES Standards Committee crafting a standard. Our investigation and position paper is the first step in this process.

To enable this process Sub-Committees were created to investigate the two topics that were most discussed - Reference Level and Headroom. Each Sub-Committee will have a Sub-Committee Chair. The Chair will enlist members to investigate a topic and report its findings to the TC and to the AES in the form of a white paper (or other).

- Tom Hays will chair the SC on Reference Level
- Jory Prum will chair the SC on Headroom.

Please contact them at TC_AG@aes.org if you have interest in participating in the Sub-Committee.

The next TC Meeting is in May at the 120th AES in Paris. Hope to see you there.