Minutes of the AES Technical Committee on Coding of Audio Signals

6th Meeting at the 108th AES Convention, Paris, 20 Feb 2000, 12:00pm

Meeting called to order 12:15 PM by J. Herre, TC Co-Chair.

The agenda was approved as listed in the annex (see below). An attendance list was circulated, also attached as an annex.

The chair gave a brief introduction into the concept and purpose of the AES Technical Committees (TCs) for a better understanding by the meeting attendants new to TCs. People intending to become members of the TC are kindly asked to send an email to hrr@iis.fhg.de.

The group reviewed the current TC-related activities in the context of the current Paris AES convention. These include the workshop on MPEG-4 Version 2 (W3, Sat 2-4:30pm) and the Technical Council Open House event (Mon 12:15pm). The workshop was well-attended and stimulated a lot of interest (also reflected by the number of people that were requesting the workshop slides). Thomas Sporer pointed out related activities in workshops W8 (Audio On-Line), W10 (Evaluation of Intermediate Audio Quality) and W14 (Radio@Internet).

The committee went on discussing potential future activities at upcoming AES conventions.

- One activity will clearly be the presentation of the resulting project of the "Educational CD ROM for Demonstration of Typical Coding Artifacts", if finished in time. This will happen as a workshop; a tentative time slot for this event should be allocated in the upcoming 109th AES convention in Los Angeles.
- Ye Wang introduced his planned audio-related activities (a special session on the topic of "audio coding and mobile communications") at the upcoming world computer conference in Beijing, China, from August 21 to 25, which will be the first event to cover audio coding in China. He suggested that this be an excellent opportunity for AES (besides IEEE signal processing society) to show presence in China. Marina Bosi suggested that a concrete proposal needed to worked out and communicated to Rhonda Wilson, AES Vice President International Region.
- Thomas Sporer suggested some future educational activity on "how to do a good evaluation of a perceptual codec" as a joint activity with the *TC on Perception and Subjective Evaluation of Audio Signals*. The idea should be further developed on the TC reflector.

The major part of the TC meeting was devoted to the ongoing TC project of the "Educational CD ROM for Demonstration of Typical Coding Artifacts". Markus Erne and Jürgen Herre gave a brief introduction into the purpose and scope of the project and Markus went on to give an update on its recent status. As an example for the preparation of the material, he presented both an example text and sound excerpts for the "Pre-echo" type of artifacts. He stressed the fact that the identity of coders used for the preparation of the material must not be revealed to the outside to avoid any bias w.r.t. or judgement of commercially available codecs.

Thomas Sporer noted that the idea for a similar project had emerged one day earlier within the *TC on Perception and Subjective Evaluation of Audio Signals* and coordination is desirable.

Next, the problem of finding appropriate prototype sound material for the generation of the artifacts demonstrations was discussed:

- Some samples of copyright free material were already provided by Markus Erne on the project FTP side.
- Under the existing terms and conditions of use, as posted on the MPEG web site, the non-commercial material from the EBU's SQAM CD is unfortunately not available. However, extra permission may be obtained by writing a letter to the EBU technical director (address to be provided by Gerhard Stoll).
- It seems that material similar to the one on the SQAM CD is about to be recreated at Dolby Labs and may be available for the CD ROM project (points of contact: Eric Benjamin, Louis Fielder).
- Finally, McGill University generously offered help by recording missing material (contact: Wieslaw Woszczyk).

Tomas Sporer advocated strongly, not to create a second, third, n-th version of a test item (e.g. castanets) because then "performance for castanets" does not mean anything any longer ... Therefore, re-creation of "vintage" SQAM items should be a last resort only.

Next, committments were collected for providing processed material with specific classes of artifacts. The following committments were made:

Pre-echo	Markus Erne
double-speech / temporal voice smearing	Thomas Boltze
BMLD artifacts	Thomas Boltze or Jim Johnston
Loss of stereo image	Jürgen Herre
Birdies / hi-frequency limitation	Antonio Pena
Aliasing	Markus Erne
Music material over speech codec	Heiko Purnhagen
"whatever is needed"	David Spector (david@davidspector.com)

Everybody committed to delivering both a first version of a textual description and a sample processed sound file onto the FTP site by April 1st.

Further discussion included the topics of exposure of coding artifacts by postprocessing of the decoded signal (another potential future activity) and the naming convention of the degrees of distortion ("subtle" / "intermediate" / "heavy" rather than grades which might be confused with grades of listening scale).

Due to time constraints (the meeting room had to be prepared for the next session) no update of the "Report on Trends in Audio" document could be performed. There was no other business. The next TC meeting is planned for the next AES convention in Low Angeles. The meeting was adjourned 1:45 PM.

Respectfully, J. Herre, Co-Chair.

Agenda:

1) Approval of Agenda
2) Opening Remarks of Chairmen
4) Review of membership list, invitations and nominations.
5) Review of activities for current convention
    - TC open house event
    - Workshop on MPEG-4 Version 2 Audio
    - Other activities
6) Review of / proposals for activities at upcoming conventions, conferences, workshops etc.
    - 109th AES convention Los Angeles
7) Status and further progression of TC CD ROM project
8) Update of “Report on Trends in Audio”
9) Any Other Business
10) Next Meeting
12) Closing of the Meeting

List of Attendees:

- Jürgen Herre
- Karlheinz Brandenburg
- Bernhard Grill
- Marina Bosi
- Wieslaw Woszczyk
- A. Benjelloun Touimi
- Deepen Sinha
- Ye Wang
- Markus Erne
- Antonio Pena
- Alberto Duenas
- Gerhard Stoll
- Thomas Boltze
- Thomas Sporer
- Heiko Purnhagen
- David Drezner
- Alicia Benito
- Jens Spille
- David Spector
- Eloi Battle
- Lee Ray
- Alain Le Guyader
- Bernhard Feiten