

Minutes of the AES Technical Committee on Coding of Audio Signals

12th Meeting at the 114th AES Convention, Amsterdam, 23 March 2003

Meeting called to order 15:40 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 group reviewed the current TC-related activities in the context of the Amsterdam AES convention. These included Workshop #1 on Spatial Audio Coding, chaired by Christof Faller and Workshop #5 on MPEG-4 Audio Extensions. Both workshops were well-received and had a good attendance. Furthermore, the Richard C. Heyser Memorial Lecture for Amsterdam was called to the group's attention by the chair, with Professor Jens Blauert as the distinguished lecturer.

With respect to Educational CD ROM on coding artifacts, Markus Erne reported that 1400 copies had been sold so far which is an impressive result of the TC's project. It was, however, also noted that it appears that the promotional effort for the ROM is decreasing (e.g. there is no poster at the AES publications booth). Promoting and selling the CD ROM should be in the best interest of the AES, both in terms of outside perception and finance. Markus Erne and Juergen Herre will bring this up at AES publications and at the Technical Council meeting.

The group went on to discuss possible next steps to extend/enhance the CD ROM project. Schuyler Quackenbush proposed the idea of adding a historical perspective to the project (e.g. "how did coder performance historically improve over time?"). It was noted that so far the CD ROM project did not refer to any particular commercial coder but illustrated the principal coding artifacts based on synthetic distortions or unnamed coding systems in order to avoid any legal problems or commercial bias. The idea of documenting historical perspectives of audio coding evolved into a potential joint project with the AES Historical Committee (chaired by Jay McKnight). J. Herre will visit the historical committee to explore the opportunities. As a further possible extension of the coding distortions CD ROM, Christof Faller proposed parametric coding distortions. Also, issues of multi-channel downmixing artifacts were discussed.

The significant part of the meeting time was spent to discuss potential new activities for the upcoming 115th AES convention in New York. Michael Kelly asked whether the topic of MPEG-4 Structured Audio (SAOL) could be the basis for a workshop. It was noted, however, that there is currently very little support of this topic in the standardization and commercial communities. A related smaller set of tools, MPEG-4 AudioBIFS, is however starting to be used widely for purposes of composition of audio scenes. An inquiry on the relevance of the ongoing MPEG-21 Digital Item Adaptation (DIA) activities was directed to Jens Spille. Some discussion revealed that this might not be an attractive topic for an AES audience since this activity mainly focuses on the description of terminal, setup and user characteristics. The chair proposed an

update workshop on MPEG-7 Audio (possibly targeting at the Version 2 extensions), maybe as a joint activity with the newly founded TC on Semantic Audio Analysis.

In conclusion, it was decided to follow up on two proposals for AES 115th:

- Workshop on the applications of AudioBIFS and Structured Audio. There should be a considerable number of nice applications and demonstrations available. Possible coordinators are Giorgio Zoia (EPFL); Schuyler Quackenbush can act as a backup; Jens Spille might be another possibility. Further persons that might be interested in this activity include John Lazarro, Julian Fisher (Envivio), persons from Berkeley.
- A proposal for an MPEG-7 related activity will be discussed by J. Herre at the formative meeting of the new TC on Semantic Audio Analysis

Looking further into the future, Markus Erne proposed a workshop for the 116th AES convention in Berlin, possibly a joint project with the “Transmission and Broadcasting” and “Network Audio Systems”. The topic would be the issues of transmission of low bitrate audio and error concealment methods in the compressed domain. The hands-on workshop would have its main focus on channel mitigation and would address some typical difficult channels e.g. wireless. Material will be available from Markus, but also from MPEG-4 Audio work on Error Resilience/Robustness. Markus Erne to approach the other TCs on that issue.

Talking about “other business”, Karlheinz Brandenburg drew the attention of the group to the availability of a new (and the first book) on Digital Audio Coding and Standards by Marina Bosi and Richard Goldberg. The chair announced that persons intending to become members of the TC are kindly asked to send an email to hrr@aes.org after the AES convention.

The next TC meeting is planned for the upcoming 115th AES convention in New York. The meeting was adjourned 16:45 hours.

Respectfully, J. Herre, Co-Chair.

Agenda:

- 1) Approval of Agenda
- 2) Opening Remarks of Chairman
- 3) Review of activities for current convention
 - Richard C. Heyser Memorial Lecture Series
 - MPEG-4 Extensions Workshop
 - Spatial Audio Coding Workshop
 - Other activities
- 4) Review of / proposals for activities at upcoming conventions, conferences, workshops etc.
 - 115th AES convention New York
- 5) Any Other Business
- 6) Next Meeting
- 7) Closing of the Meeting

List of Attendees:

- Alberto Duenas
- Antonio Pena
- Christof Faller
- Enrique Alexandre
- Gerald Schuller
- Jens Spille
- Karlheinz Brandenburg
- Marina Bosi
- Jürgen Herre
- Mark Sandler
- Markus Erne
- Martin Dietz
- Michael Kelly
- Schuyler Quackenbush
- Andre Vanschaik
- Omar Niamut
- Laurent Daudet
- Imre Varga
- Hossein Najaf-Zadeh

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