Minutes of the AES Technical Committee on Coding of Audio Signals

10th Meeting at the 112th AES Convention, Munich, 11 May 2002, 11:15

Meeting called to order 11:15 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. Persons intending to become members of the TC are kindly asked to send an email to hrr@aes.org.

The group reviewed the current TC-related activities in the context of the current Munich AES convention. These include the workshop on "Listening to Perceptual Audio Coders" Workshop (W4, Sat 9-11:30am) which was the first workshop to introduce the TC CD ROM project in Europe. The workshop was well-attended and stimulated a lot of interest. Furthermore a set of two invited papers have been successfully proposed to the convention committee in order to present an update on recent extension work within MPEG-4 Audio (compatible bandwidth extension and high-quality parametric audio coding).

The committee went on discussing potential future activities at the upcoming 113th AES conventions in Los Angeles.

- The chair proposed a workshop to educate the AES audience about ongoing extension work in the MPEG-4 Audio arena. Specifically, this would cover the groundbreaking work on bandwidth extension, parametric coding of high-quality audio signals as well as scalable lossless coding of audio. Jürgen Herre offered to be the point of contact for this activity.
- A second proposal was made by Christof Faller, namely a workshop on "coding of spatial audio". The workshop would include a guided tour through the numerous techniques for joint stereo coding of audio, going all the way from well-known to more recent techniques (e.g. M/S stereo, intensity stereo, BCC). It may contrast techniques aiming at achieving very low bitrates with other, more "object-based" approaches , touch upon techniques for "synthetic spatial audio" and provide an application outlook. For this activity, Christof Faller will act as the point of contact.
- Since it appears that there may be only one time slot for a coding workshop at Los Angeles, both proposals will be relayed to the L.A. workshop chair as soon as possible who then should make a choice.
- For the next European convention in Amsterdam, it was proposed to stimulate an activity dealing with object-based approaches, maybe by means of a combined paper session & roundtable discussion/demonstrations or a workshop. It was noted that it would be desirable to have printed material available to the audio, but on the other hand an invited paper session might be too inflexible due to the associated fixed half hour time slots for each presentation.
- A further remark was made as to whether it would be worthwhile to develop an activity describing the underlying technology for the major codecs on the market, including

proprietary systems. It was noted that publication of technical information on these systems often appears to be difficult. On the other hand, the academic research community would greatly benefit from a complete knowledge about the current the state of the art in audio coding.

Next, Markus Erne gave a report on the status of the TC's educational CD ROM project ("Perceptual Audio Coders – What to listen for"). The good news is that a first release (1000 CDs) is virtually sold out only half a year after its launch. Therefore, a fast reaction towards producing a second edition is necessary. This second edition has to be made available for CD production very shortly and will thus contain only minor changes / corrections w.r.t. its first edition. All authors and proof readers are urged to send their input to Markus Erne no later than May 17th. A proposal for contributions from the AES TC on Signal Processing on adding some other types of artifact material (e.g. dithering) was discussed. It was noted that an extension of the current CD ROM becomes difficult due to limitations in the number of possible tracks (the number of tracks must not exceed 99, 97 out of which are already taken). Also, similar material seems already available on other demonstration CD ROMs outside of the AES. Markus Erne will contact the SP TC chair to determine the further course of action in this matter.

There was no other business. The next TC meeting is planned for the upcoming 113th AES convention in Low Angeles. The meeting was adjourned 12:20 hours.

Respectfully, J. Herre, Co-Chair.

Agenda:

1) Approval of Agenda
2) Opening Remarks of Chairmen
3) Review of membership list, invitations and nominations.
4) Review of activities for current convention
    - Richard C. Heyser Memorial Lecture Series
    - CD ROM Workshop
    - MPEG-4 Extensions
    - Other activities
5) Review of / proposals for activities at upcoming conventions, conferences, workshops etc.
    - 113th AES convention Los Angeles
6) Status and further progression of TC CD ROM project
7) Any Other Business
8) Next Meeting
9) Closing of the Meeting

List of Attendees:

- Antonio Pena
- Christof Faller
- Enrique Alexandre
- Gerald Schuller
- Heiko Purnhagen
- Jürgen Herre
- Karlheinz Brandenburg
- Mark Sandler (via L. Daudet)
- Markus Erne
- Thomas Sporer
- Ashish Aggarwal
- Craig Jin
- Michael Kelly
- Mat Hans
- Lazare Reznik
- Niessen Bendit
- Jan P. Andrews
- Mathias Coinchon

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