

## Minutes of the AES Technical Committee on Coding of Audio Signals

8th Meeting at the 110th AES Convention, Amsterdam, 13 May 2001

Meeting called to order 4:45 PM by J. Herre, TC Co-Chair, after the end of the preceding workshop on “Watermarking and Sound Quality”.

The agenda was approved as listed in the annex (see below). An attendance list was circulated, also attached as an annex. Those wishing to join the reflector should mail to [hrr@iis.fhg.de](mailto:hrr@iis.fhg.de) after the convention.

The main TC sponsored activity for this convention is the Workshop on MPEG-7 Audio. There was a quick summary of the workshop and participants, as documented in the convention program. As usual, the Heyser lecture was noted as part of the Technical Council efforts.

Due to the rather late date of the 110th AES convention in relation to the planning effort for the 111th AES convention in New York (e.g. papers deadline was already quite some time ago), no proposals for papers or sessions will be possible. There will be, however, an invited paper by Markus Erne presenting the new educational CD ROM about coding artifacts (see below) to introduce this project to the public and promote the sale of the CD ROM itself.

The main part of the meeting was devoted to discussing the status and workplan for the TC CD ROM project, which tutors people on possible artifacts in the context of perceptual audio coding, contains sound examples, background information and other supplementary material.

- The goal is to have the CD ROM ready for sale at the upcoming 111th AES convention, NY.
- The major part of the material have been delivered so far by contributors and the project leader, Markus Erne, has compiled a first version of the CD ROM.
- It was noted that this is a “first-time” project, i.e. the first multimedia CD ROM among the AES Technical Council publications done so far. Therefore, a number of procedural questions had to be clarified together with Roger Furness (in a separate fruitful Meeting with Markus Erne and the AES Technical Council Officers) and Bill McQuaide of AES publications who was present at the TC meeting.
- For finalization of the CD ROM, it is necessary to collect the (rather small amount of) outstanding material and start the internal technical review process ASAP.
- The CD ROM also undergo the customary review process associated with Technical Council publications, including the informal review by the AES standards committees.

The following responsibilities were assigned (“rev” indicates reviewing person):

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### **Table of Contents:**

The CD-ROM will have the following content:

1. Foreword, Introduction by the AES-TC (Jürgen Herre / Jim Johnston, Wieslaw)

2. Table of contents [production]
3. AES-paper "Perceptual Audio Coders - what to listen for" (Markus Erne) (rev: Herre)
4. Tutorial on Audio Coding (Markus Erne) (rev: Herre, Bosi)
5. Time-Frequency artifacts
  - Aliasing (Markus Erne) (rev: Edler)
  - Processing in the subband domain (Chris Lanciani) (rev: Mark Sandler)
  - Pre-Echo artifacts (Markus Erne) (rev: Antonia Pena)
  - Speech Echo artifacts (Gerald Schuller) (rev: Johnston)
  - Bandwidth limitations (Antonio Pena) (rev: Goodwin)
6. Perceptual Model artifacts
  - BMLD artifacts (Jim Johnston) (text to be collected!) (rev: Herre)
  - Birdies (Antonio Pena) (rev: Dietz)
  - Stereo-Imaging artifacts (Juergen Herre) (rev: Erne)
7. Application-specific Artifacts
  - Audio over speech codecs (Heiko Purnhagen) (rev: Spille)
  - Tandem coding (Juergen Herre) (Fielder/Davidson)
8. Discussion and outlook (?)
9. Exercises in order to identify a randomly chosen artifact (->Erne)
10. Programs (Difference-Program, Psychoacoustic Viewer) (->Erne)
11. Index [production]

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These tasks will be listed as part of the TC meeting minutes and conveyed via the email reflector after the AES convention. In order to ensure timely publication of the CD ROM at the 111th AES convention, it is important to stick to the time line as listed in the annex !

Further action items include:

- Obtain clearance for audio material from the EBU SQAM disc. Juergen Herre will obtain this process based on a list of used items to be provided by Markus Erne.
- Obtain clearance for other audio material used (Juergen Herre, Markus Erne)
- Listening grades to be added for each type of artifact, based on a MUSHRA test (Thomas Sporer). Since this activity will not start immediately after the meeting, placeholders will be used for this material in the mean time.
- Marina Bosi will check the feasibility of including the coding tutorials from the AES 17th Conference into the CD ROM

- As expressed prior to the meeting, also Gerald Schuller is also willing to contribute to the CD ROM project activities.

The meeting was closed at 5:50 PM.

Respectfully, J. Herre, Co-Chair

## Agenda:

- 1) Approval of Agenda
- 2) Opening Remarks of Chairman
- 4) Review of membership list, consideration of any others to invite
- 5) Review of activities for current convention
  - Richard C. Heyser Memorial Lecture Series
  - Workshop on MPEG-7 Audio
  - Other activities
- 6) Review of / proposals for activities at upcoming conventions, conferences, workshops etc.
  - 111th AES convention New York
- 7) Status and further progression of TC educational CD ROM project
- 8) Any Other Business
- 9) Next Meeting
- 10) Closing of the Meeting

## List of Attendees:

- Jürgen Herre
- Karlheinz Brandenburg
- Martin Dietz
- Marina Bosi
- Markus Erne
- Louis Fielder
- Alberto Duenas
- Thomas Sporer
- Heiko Purnhagen
- Bernd Edler
- Enrique Alexandre
- Mark Sandler
- Jens Spille
- Miikka Vilermo
- Bill McQuaide

## Time Table for CD ROM Project Work Plan:

Finalization process:	Milestone:	end of May
Review of the technical content:	Milestone:	mid of June
Lingual review:	Milestone:	end of June
Legal review:	Milestone:	end of June
AES-PD review	Milestone:	end of June
Layout:	Milestone:	end of July
Pre-Master CD	Milestone:	mid of August
Production:	Milestone:	mid of September
Marketing	Beginning:	at the 111th AES