

AES Technical Committee on Spatial Audio

Notes from the meeting held in London at the 130th Convention May 13-16, 2011

Chair: Ville Pulkki

Attendee Introductions and Interests - Attendees had an opportunity to introduce themselves and express their interest in the Spatial Audio TC, and identify what the main issues and emerging trends are in this area. There was representation from the academic institutions, audio coding industry, and from smaller-scale audio industry. There were 12 attendees, see attachment.

Events

The TC has been active in organizing workshops and in AES130.

Workshop on "Panning for Multichannel Loudspeaker Systems"

During recent few years there has been some project studying how to position virtual sources with a multichannel array, with techniques somehow related to vector base amplitude panning (VBAP). In the workshop Ville Pulkki gave an introduction to amplitude panning in general and to VBAP, which is a formulation based on vector bases. Filippo Fazi, Florian Keiler and Matthias Frank gave talks on different perspectives to the same question followed by a lively discussion.

Workshop on "Production for Upcoming Spatial Audio Systems"

Frank Melchior chaired the workshop, and Marc Emerit, Kimio Hamasaki, Jeff Levison, Jörn Loviscach, Wieslaw Woszczyk and Gregor Zielinsky acted as panelists. The panelists had a wide view on the topic, from simultaneous recording of surrounding audio and video to mixing and user interfaces for source placement. The state of the art production methods and tools for the new audio systems currently under discussion were presented. The panel had a vital discussion regarding object-based and channel-based audio as well as user interfaces for spatial audio production.

Proposals for Upcoming Workshops/Tutorials

Chris Faller suggested a workshop on upmixing of different audio formats to arbitrary setups, including also 3D setups, this would happen in AES132.

Ville Pulkki suggested that the workshop on amplitude panning could be repeated in AES131. The workshop was nicely attended, and at least Ville got some positive feedback on it. Frank Melchior is also planning to repeat the workshop.

Sascha Sporer and Thomas Sporer discussed some ideas to organize a workshop in AES131 on recent activities in audio quality evaluation.

AES Conferences

Ville Pulkki briefly reported from very successful AES40th conference in Tokyo.

Thomas Sporer talked about the upcoming AES 42nd conference on semantic audio next July in Ilmenay, Germany.

Ville Pulkki advertised the AES 45th conference on applications of time-frequency processing in audio March 2012 in Finland, and also mentioned that next Spatial Audio conference preproposal will be made for a conference in 2014 also in Finland.

Discussion on the AES standard on capture/reproduction metadata

This idea was introduced in TC meeting in AES126. Ville Pulkki wrote a white paper in autumn 2009, which circulated in the TC. Ville Pulkki has contacted standardization committees, and checked the two audio metadata standards, which are in process. None of the upcoming standards cover the idea of AES TC-SA. Emanuel Habets pointed out that in an academic project SCENIC in Erlangen University there has been very similar ideas around. Juergen Herre pointed out, that AES standardization process might need that somebody would start to push forward the idea in there. If anybody volunteers, pls contact the chairs.

Discussion on glossary for Spatial Audio

This idea was introduced by Jens Ahrens. Spatial audio is relatively large field, and researchers and industry use some terms in contradicting manner and without clear

definitions. A glossary of common terms should be formed, which would include explanations of the terms in most-used meanings, and followed by a recommendation by TC-SA which meaning should be used for the term. Jens Ahrens, Sascha Spors and Ville Pulkki form a team. In principle, the terms should be first collected, after which meanings for the terms would be harvested, and then the recommendations for term meanings would be agreed, or voted for. The timeline for the project is planned to be:

Soon: call for terms and explanations to a wiki-based system
AES131: status report, advertising of the project
AES132: no more terms can be added
AES133: explanation list fixed, voting for recommendations
AES134: final list ready

If somebody wants to be involved in the project, pls contact Ville Pulkki.

Participants

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