

Press Release

Erlangen,
August 30, 2011

Fraunhofer Showcases Dialogue Enhancement Technology for Improved Speech Intelligibility and Listening Control

Visit us at IFA 2011, Berlin
September 2 – 7
Hall 11.1 / Booth 8

and at IBC 2011, Amsterdam
September 9 – 13
Hall 18 / Booth D80

Fraunhofer Institute for Integrated Circuits IIS

Am Wolfsmantel 33
91058 Erlangen, Germany

Executive Director
Prof. Dr.-Ing. Heinz Gerhäuser
Director
Prof. Dr.-Ing. Albert Heuberger

Contact
Matthias Rose
Phone +49 9131 776-6175
Fax +49 9131 776-6099
matthias.rose@iis.fraunhofer.de

Public Relations
Marc Briele
Phone +49 9131 776-1630
Fax +49 9131 776-1649
presse@iis.fraunhofer.de
www.iis.fraunhofer.de
www.facebook.com/FraunhoferIIS

Fraunhofer USA, Inc.
Digital Media Technologies*
100 Century Court
Suite 504
San Jose, California 95112
www.dmt.fraunhofer.org

Contact
Jan Nordmann
Phone +1 408 573 9900
Cell +1 408 390 6698
press@dmf.fraunhofer.org

* Fraunhofer USA Digital Media Technologies,
a division of Fraunhofer USA, Inc., promotes
and supports the products of Fraunhofer IIS
in the U.S.

Tested by BBC during Wimbledon, Fraunhofer's new technology enables end users to adapt the volume of different audio elements within a single broadcast program

Fraunhofer IIS, the world's renowned source for audio and multimedia technologies, is previewing its new dialogue enhancement technology at IFA and IBC 2011. It allows TV and radio audiences to individually adjust the volume of dialogue, music or sound effects within a single broadcast program. Fraunhofer's technology will be the first of its kind to enable this level of audio control at the low bit-rates required for broadcasting.

Mixing the sound for broadcasting of live events, such as football or tennis, is not always an easy task due to the varying listening preference of each end user. Some sport fans would rather hear more stadium atmosphere to experience a better live feeling, while others prefer better intelligibility of the commentator's voice. To solve this issue, Fraunhofer brings control to the listener with its new dialogue enhancement technology. It will help broadcasters meet the demand for better speech intelligibility and enable radio or TV listeners to increase or decrease the volume of specific audio elements to their taste.

Recently the subject of a BBC experiment during Wimbledon 2011, the technology enabled users of a specifically designed media player to listen to Radio 5 Live's online stream and adjust the audio volume levels of the commentator or background ambience during live coverage of the match for

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a tailored audio experience. The user reaction was positive, with users reporting the new feature as a useful extension for broadcasting.

Fraunhofer's dialogue enhancement technology allows for highly efficient transportation of individual audio objects, such as a commentator's voice or stadium atmosphere, in a compatible mono or stereo downmix. The audio encoder receives these objects and produces a single mix, as well as a stream of parametric side information. The transmission of the mix, plus side information, is extremely bit-rate efficient, as each audio object only slightly increases the overall bit-rate. The mix can be produced automatically or by a sound engineer. On the receiving side, the user is then able to adjust the volume of each object individually, to improve the intelligibility of the sports commentator.

Fraunhofer's dialogue enhancement technology is completely compatible with existing transmission and playback equipment. Devices that are not capable of decoding the parametric side information will play back the mixed audio signal.

Fraunhofer will demonstrate the dialogue enhancement technology at IFA Berlin 2-7 Sept. 2011 at the Fraunhofer booth in hall 11.1 and at IBC in Amsterdam 9-13 Sept. 2011, at the Fraunhofer booth in hall 8, B80.

For more information, visit www.iis.fraunhofer.de/en/bf/amm/

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About Fraunhofer

The Fraunhofer IIS Audio and Multimedia division, based in Erlangen, Germany, has been working in compressed audio technology for more than 20 years and remains a leading innovator of technologies for cutting-edge multimedia systems. Fraunhofer IIS is universally credited with the development of mp3 and co-development of AAC (Advanced Audio Coding) as well as technologies for the media world of tomorrow, including MPEG Surround, MPEG Spatial Audio Object Coding and the Fraunhofer Audio Communication Engine.

Through the course of more than two decades, Fraunhofer IIS has licensed its audio codec software and application-specific customizations to at least 1,000 companies. Fraunhofer estimates that it has enabled more than 1 billion commercial products worldwide using its mp3, AAC and other media technologies.

The Fraunhofer IIS organization is part of Fraunhofer-Gesellschaft, based in Munich, Germany. Fraunhofer-Gesellschaft is Europe's largest applied research organization and is partly funded by the German government. With 18,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 60 Institutes conducting research in a broad range of research areas. For more information, contact Matthias Rose, matthias.rose@iis.fraunhofer.de, or visit www.iis.fraunhofer.de/amm.

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