

Fraunhofer IIS and HHI show joint demo at FKTG Fachtagung

The Fraunhofer institutes join forces with broadcaster WDR to showcase Next-Generation Video and Audio Coding.

For the joint project, Fraunhofer IIS optimized the sound of an episode of the popular crime series “Tatort”, called “Hubertys Rache” (Huberty’s revenge), which was produced by WDR, with the MPEG-H Audio Technology Dialog+. This enables the use of presets and the easy adaptation of the audio to personal preferences.

Fraunhofer HHI encoded the film with the latest Versatile Video Coding (VVC) standard, in the development of which they played a crucial role. One major advantage offered by VVC is its significantly higher compression efficiency than previously available video coding standards. Thus, with the help of VVC, Tatort can be transmitted with the same subjective picture quality at a 75% reduced data rate in comparison to the AVC standard currently used for the VoD-service “ARD Mediathek”.

In addition to the “Tatort”, WDR contributed valuable insights and requirements from extensive testing to the Next Generation Video and Audio encodings.

Visitors to the FKTG Fachtagung in Erfurt from Oct 24-26 can view the result of this successful cooperation between WDR and the two Fraunhofer Institutes at the shared booth 1.3. The movies encoded with VVC and MPEG-H Audio will be played on a standard tablet. Fraunhofer IIS will also show a broad range of personalization options with a “Tatort”-Episode from Cologne.

About MPEG-H Audio

MPEG-H Audio is a Next-Generation Audio technology that creates a unique experience by immersing listeners in sound. Comprehensive personalization features enable the customization of MPEG-H Audio content to individual preferences and ensure a high level of accessibility. The audio system optimizes the sound quality for any playback device and creates the optimum experience in all environments.

About Versatile Video Coding (VVC)

VVC standardization work began in April 2018 and was completed in July 2020. Fraunhofer HHI played a key role in the preliminary research for VVC and its standardization. Building upon substantially increased compression efficiency, the VVC standard offers increased versatility in terms of its usability for diverse applications compared to its predecessor standards. For instance, VVC already supports High Dynamic Range (HDR), Wide Color Gamut (WCG), resolution- and rate-adaptive streaming, 360-degree immersive video, scalability, and efficient encoding of screen content in its first version.

Fraunhofer HHI has developed open-source and efficient software solutions for encoding and decoding with VVC, VVenC and VVdeC, which are used in the showcase as well.