easyDCP Incorporates IMF Generation with Quality Control Functionality Integrated to Facilitate Transcoding

Erlangen and Ilmenau, Germany/Las Vegas, Nevada – The Interoperable Master Format (IMF) is showing rapid growth in the media industry since its standardization by the Society of Motion Picture and Television Engineers (SMPTE) in 2016. The IMF is a uniform exchange format in post-production that enables the generation of different distribution formats derived from the master. For this process automated quality control of the AV-material after each transcoding step is essential to save time and money simultaneously. The IMF does not define quality control mechanisms; however, such functionalities are now integrated in the easyDCP post-production tools from Fraunhofer IIS to facilitate automated transcoding.

In addition to DCPs, Fraunhofer’s well-known post production software, easyDCP, also provides the processing of Interoperable Master Packages (IMPs). The IMF as specification for the IMP serves as a universal exchange format, standardized by the SMPTE and guarantees seamless exchange of content in the highest picture quality between post-production facilities. Concurrently, the IMP serves as a master for the creation of distribution formats. It is common practice to create up to 100 versions of various distribution formats from a single master format while simultaneously checking each version.

The IMF allows for the automatic creation of videos with different technical parameters such as video compression format, spatial resolution of the target device, audio speaker set-up, or versions in different languages.

This work is automated by an Output Profile List (OPL) which converts the IMP into a certain distribution format described in the OPL.

The large number of automatically created videos means that a comprehensive automatic quality check of the IMP before and during the transcoding process is necessary to save time and money. Fraunhofer IIS and IDMT present a software solution that directly integrates various quality checks into the transcoding process. The software can be used to create the IMP and to automatically check the generation of distribution formats from the IMP.
The quality control tools are integrated into easyDCP and allow for detecting problematic sections of video and audio which are summarized in a report. The comprehensive report is presented as a visual timeline to establish an intuitive method to check the problematic scenes.

The first software version of easyDCP with QC functionality is available for pilot users on April 24, 2017. For more information, visit www.iis.fraunhofer.de/easyDCP or stop by Fraunhofer’s exhibit at NAB 2017 in the Las Vegas Convention Center, South Upper Hall booth # SU6110.

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The Fraunhofer Institute for Integrated Circuits IIS is one of the world’s leading application-oriented research institutions for microelectronic and IT system solutions and services. It ranks first among all Fraunhofer Institutes. With the creation of mp3 and the co-development of AAC, Fraunhofer IIS has reached worldwide recognition. In close cooperation with partners and clients the Institute provides research and development services in the following areas: Audio and Media Technologies, Imaging Systems, Energy Management, IC Design and Design Automation, Communications, Positioning, Medical Technology, Sensor Systems, Safety and Security Technology, Supply Chain Management and Non-destructive Testing. More than 900 employees conduct contract research for industry, the service sector and public authorities. Founded in 1985 in Erlangen, Fraunhofer IIS has now 13 locations in 10 cities: Erlangen (headquarters), Nuremberg, Fürth, Dresden, further in Bamberg, Waischenfeld, Coburg, Würzburg, Ilmenau and Deggendorf. The budget of 150 million euros is mainly financed by projects. 24 percent of the budget is subsidized by federal and state funds. Detailed information on: www.iis.fraunhofer.de/en