PRESS RELEASE

Fraunhofer IIS and IHSE announce their partnership for new JPEG XS implementations at IBC 2023

Erlangen, Germany; Oberteuringen, Germany: Fraunhofer Institute for Integrated Circuits IIS and IHSE GmbH, the leading developer of KVM systems, are cooperating to bring JPEG XS functionality to software and hardware-based devices which enable ultra-low latency and high-quality video transmissions. By using Fraunhofer's JPEG XS SDK and IHSE's JPEG XS IP-core for FPGAs, innovative and ultra-low latency broadcast, in-house and gaming video routes can be realized with predictive and precise rate control.

JPEG XS is the new ISO/IEC codec for all video over IP workflows in studio environments, for local video networks and for VR/AR applications. JPEG XS allows transferring high-resolution and high-quality video data over standard Ethernet or other wired connections. The codec is designed to work with limited computing resources. The video coding experts of Fraunhofer IIS developed a high-performance software library that is available as a Software Development Kit SDK for implementing the core JPEG XS functionality in software and hardware products. Especially the ultra-low latency feature for encoding and decoding of images makes JPEG XS an ideal candidate for KVM and gaming applications.

Stronger together

"For many years, IHSE and Fraunhofer IIS have been working together to develop the best low-latency codec for demanding transport streams of high resolution images in real time. With JPEG XS a new step in this partnership evolved," explains Prof. Dr. Siegfried Foessel, Head of the Moving Picture department at Fraunhofer IIS.

As one of the most relevant drivers of the JPEG XS standard, the Fraunhofer IIS experts optimized a JPEG XS software library for CPU and GPU. A first result of the partnership is the integration of the library into IHSE's Draco Con APP. With this app a new dimension of flexibility is introduced to KVM systems. The software based KVM solution enables users to access an IHSE KVM network via IP protocol from a standard, network connected PC.

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Cooperation for bringing JPEG XS into FPGAs

The JPEG XS software codec from Fraunhofer IIS was transferred into an IP-Core for FPGA. "This IP-Core will not only be used for in-house products but will be also available as a licensing product to other KVM vendors or Pro-AV manufacturers," says Dr. Enno Littmann, CEO at IHSE. "With different implementations available, either as software or FPGA IP-core, manufacturers can choose the best solution for their products."

More information: https://www.jpegxs.com or https://jpeg.org/jpegxs/index.html
For product demonstrations at the IBC, visit us at the Fraunhofer booth in Hall 8 B80 and IHSE in Hall 7A25.

IN COOPERATION WITH

About IHSE

IHSE is a leading developer and manufacturer of advanced KVM devices. KVM stands for Keyboard, Video, Mouse. KVM technology allows the switching, extension and conversion of these three primary computer signals and many else, e.g. DVI, HDMI, digital audio or USB. At their headquarters near Lake Constance, Germany, IHSE develops and manufactures switches for operating and switching between computers and consoles, as well as extenders for visually lossless signal transmission, with 30 years of experience. Detailed information on: www.ihse.de

About Fraunhofer IIS

For over 30 years, the institute's Audio and Media Technologies division has been shaping the globally deployed standards and technologies in the fields of audio and moving picture production. Starting with the creation of mp3 and continuing with the co-development of AAC and the Digital Cinema Initiative test plan, almost all consumer electronic devices, computers and mobile phones are equipped with systems and technologies from Erlangen today. Meanwhile, a new generation of best-in-class media technologies – such as MPEG-H Audio, xHE-AAC, EVS, LC3/LC3plus, Symphoria, Sonamic and upHear – is elevating the user experience to new heights. Detailed information on: www.iis.fraunhofer.de/jpegxs