

PRESS RELEASE

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The Department of Moving Picture Technologies of Fraunhofer IIS Debuts New Camera Array For Next Generation Film and Video Production

New array offers enhanced flexibility for new creative production methods including high frame rates, high dynamic range and lightfield processes.

LAS VEGAS – April 8, 2013 – (NAB Booth C7843) – The Department of Moving Picture Technologies of Fraunhofer IIS, the world’s renowned source for audio and multimedia technologies, today announces the launch of its new camera array for next generation film and video experiences. With its enhanced flexibility, the array enables the use of new creative methods including multi-view, high dynamic range (HDR), high frame rate (HFR) and lightfield capturing.

“Cinematographers and technicians are already working on next-generation technologies to enhance cinema and image experiences beyond stereo 3D production,” says Dr. Siegfried Foessel, head of department Moving Picture Technologies at Fraunhofer IIS. “The new array of Fraunhofer has been developed to adapt to a variety of production conditions to enable new creative possibilities that extend beyond traditional cameras.”

The new array is highly flexible and reduces complexity for the digital media and cinema workflow. The array transfers trigger information, power and data through a single Ethernet connection that can be controlled and synchronized by one computer. It delivers a preview image for camera alignment, mounting and for quality control, making reconfiguration based on the amount of cameras and alignment set-up easy for the user.

In addition, the new array consists of identical small-sized compact cameras, each consisting of a three-megapixel sensor. Debayering, white balance, and storage are performed in the cameras, with each being able to directly output RGB or raw data without the need for additional external processing.

Arrays provide higher resolution and precision for further processing steps. For example, multiple images from the various camera views are fused to process HDR images. In addition, arrays make it possible to capture the entire lightfield of a scene.

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Editorial notes

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FRAUNHOFER INSTITUT FOR INTEGRATED CIRCUITS IIS

This makes refocusing, virtual camera positioning and depth map extraction possible after the scene has already been recorded.

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The new camera array will be showcased at NAB from April 8-11. Show attendees can see a demonstration at Fraunhofer's booth C7843.

The Department of Moving Picture Technologies of Fraunhofer IIS is part of the Fraunhofer Digital Cinema Alliance, which also consists of the Fraunhofer Heinrich Hertz Institute HHI, Fraunhofer IDMT and Fraunhofer FOKUS. The Alliance provides a network of deep expertise and intelligence for the development of scalable technologies and international standards that allow customers to stay ahead of the market.

About Fraunhofer IIS

Founded in 1985 the Fraunhofer Institute for Integrated Circuits IIS in Erlangen, today with more than 780 staff members, ranks first among the Fraunhofer institutes concerning headcount and revenues. As the main inventor of mp3 and universally credited with the co-development of AAC audio coding standard, Fraunhofer IIS has reached worldwide recognition. It provides research services on contract basis and technology licensing. 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 22,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 60 institutes conducting research in a broad range of research areas.

For more information, contact Angela Raguse, rgs@iis.fraunhofer.de, or <http://www.dcinema.fraunhofer.de>.

About the Department Moving Picture Technologies

The Department Moving Picture Technologies develops new innovative imaging systems and procedures based on High Dynamic Range (HDR), Lightfield and 3D capturing methods. Main application areas are the motion picture and TV industry, but also other areas will be covered. The algorithms will be used to extend technical and creative opportunities on the set and in the post production. To achieve practical use specific components like image processing ASICs, software tools or complete prototypes and devices will be developed.

Well known software developments will be used, e.g. easyDCP for creation, play-back and control of Digital Cinema Packages. Actual and future extensions will work for enhanced 3D distribution packages, multi-format mastering or archiving of media content. The department is well connected to other organizations and associations and is working in several international standardization organizations.

About Fraunhofer

The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. At present, the Fraunhofer-Gesellschaft maintains 66 institutes and independent research units. The majority of the more than 22,000 staff are qualified scientists and engineers, who work with an annual research budget of 1.9 billion euros. Roughly two thirds of this sum is generated through contract research on behalf of industry and publicly funded research projects. Branches in the USA and Asia serve to promote international cooperation.