PRESS RELEASE

Fraunhofer Digital Cinema Alliance Presents New Plug-In for the Post-Production of Light-Field Data for Avid Media Composer

Amsterdam, Netherlands, September 12, 2014: IBC stand 8.B80 – The Fraunhofer Digital Cinema Alliance, leading provider of future-oriented solutions for an enhanced digital media and digital cinema workflow, is presenting a new light-field software plug-in for Avid Media Composer®, developed by Fraunhofer IIS, at IBC 2014. On-location retakes are time-consuming and expensive. What if the focus was incorrectly set during shooting or the perspective has to be changed? The use of intelligent algorithms and multi-camera systems that provide multiple simultaneous views opens the door to a world of new post-production possibilities. The new software plug-in allows integration of this functionality into an existing post-production software. Creative work with light-field data can be experienced by using an intuitive user-interface to process this data. The plug-in is one of the new developments that Fraunhofer IIS is presenting at IBC for movie and video production in hall 8, stand B80.

An unforgettable sunrise, a complicated stunt, or the unattainable emotion of the actors in the scene is unique and cannot be repeated. It's unacceptable if that's the moment when the sharpness wasn't set exactly or the right angle hadn't been chosen. Any number of things might happen at any second to prevent the right impression being captured on film.

One new technology that could be used is filming using multi-camera systems, known as light-field technology. This means that a single recording contains several different views, which are then used in post-production to recover the creative opportunities that sometimes seem to go missing on set. The processing of light-field data, or data from multi-camera systems, is a new and promising trend in movie production. This editing flexibility during post-production makes complex and expensive retakes or additional filming a thing of the past.

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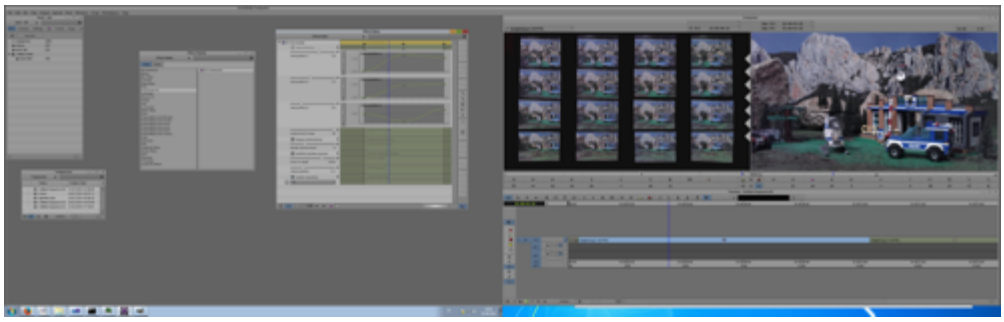
New software plug-in for post-production enables light-field data processing

Until now, the processing and testing of this new way of working with light-field or multi-camera data was only possible with proprietary and very complex programs which are difficult to handle for most users in post-production.

Experts at Fraunhofer IIS are currently working on putting this light-field processing into practice in a useful way. At IBC 2014, they're introducing a software plug-in for the Avid Media Composer that allows working with this type of data and selecting and adjusting the parameters for different effects over a graphical user interface.

To this end, the experts at Fraunhofer IIS are developing an auto-calibration method that can correct geometric distortions in the camera position (rectification) without test charts, calibration patterns, or special markers. Depth maps of high pixel density are calculated based on the scene. These depth maps can be used to generate new high-quality views for 2D, 3D, or multi-view displays.

In practice this means that by intelligent processing of different views, change in sharpness, change of the perspective, 3D effects or camera movement in all spatial directions can be calculated. This allows as many additional views as necessary to be generated from the existing views. Changes or modifications of the parameters are operated by special algorithms in such a way that the user gets a preview of a scene with the adjusted effect at any time. The adjustment of the effects or camera movement is carried out over a menu with timeline and slider functionality. The big advantage for the integration in the Avid Media Composer - as a first step – is that the user does not have to switch between different software programs. Further plug-in integrations are scheduled. A licensing model for the software is available for professional users that like to work with this new technology. The processing software is currently in the state of first implementations and testing, but offers great potential for the design of new, cost-efficient working processes in recording and production technology.



Fraunhofer IIS software plug-in to process light-field and multi-camera data
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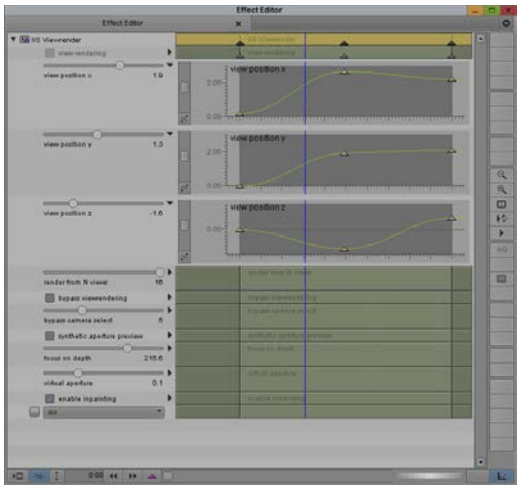

Fraunhofer IIS light-field software plug-in – effect editor for working with multi-camera data.
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The Fraunhofer Digital Cinema Alliance consists of Fraunhofer IIS, Fraunhofer Heinrich Hertz Institute HHI, Fraunhofer IDMT and Fraunhofer FOKUS. The alliance 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 the Fraunhofer Digital Cinema Alliance

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The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. Its research activities are conducted by 67 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of more than 23,000, who work with an annual research budget totaling 2 billion euros.

Founded in 1985, **Fraunhofer Institute for Integrated Circuits IIS** in Erlangen, Germany, 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. In close cooperation with partners and clients the Institute provides research and development services in the following areas: Audio & Multimedia, Communications Systems, Energy Management, IC Design and Design Automation, Imaging System, Medical Technology, Non-destructive Testing, Positioning, Safety and Security Technology, Sensor Systems plus Supply Chain Management.

More than 830 employees conduct contract research for industry, the service sector and public authorities. Fraunhofer IIS with its headquarters in Erlangen, Germany, has further branches in Dresden, Fuerth, Nuremberg, Coburg, Deggendorf, Ilmenau, Wuerzburg, Bamberg and Waischenfeld. The budget of 108 million euros is mainly financed by projects. Less than 25 percent of the budget is subsidized by federal and state funds.

Detailed information on www.iis.fraunhofer.de.