SUCCESS STORY

Basler in the Movies and on TV: Unique Converter Box with Basler aviator and ace Cameras Turns Analog Cameras into Digital Ones for Professional Broadcasting and Video Standard

Customer

Easylook System is a German company involved in broadcast and film camera development. They offer two kinds of products: Upgrading equipment for classical analog broadcast cameras (Arri) and a Mini HD camera, a very small point-of-view (POV) action camera for live broadcasting or scenic television and cinema projects. These cameras are, for example, mounted on helmets or suits, to record HD pictures while the camera man is moving.

Application

For some years now the moving picture world has been in transition from analog to digital technology. This is particularly the case for professional video and movie production. The professional cameras used in such applications are so expensive that people are reluctant to switch from analog for digital cameras. Easylook System has developed a value converter box, which converts an expensive professional analog camera (for example, the famous Arri SR3 16mm camera) to a digital film camera. Easylook System uses high-quality Basler industrial cameras with Camera Link interface to take over the job of analog film – users can place the Easylook System converter device in their analog cameras instead of the classical film magazine and record with digital technology.

One fact is worth mentioning: There are more than 7,000 Arri 16mm cameras in use all over the world. As fewer people work with film all owners, and especially rental houses, can extend the life of their ARRI 16mm cameras now. They have expensive lenses and accessories in stock and with Easymag they can continue to use these camera systems.

Solution and Benefits

A key difference between industrial cameras and professional film cameras is the interface: HD-SDI is the standard bus system in all broadcast and film applications and is used in thousands of live productions worldwide. It is easy to handle, reliable and is available for plug and play in seconds.

The story began in January 2011 when Easylook System started developing a stand-alone electronic board (CAMARO) to convert the Camera Link output of the Basler ace acA2000-340kc and the Basler aviator avA1900-60kc to the HD-SDI standard. These two cameras are a perfect choice for television and TV applications because of their global shutter, the 2/3” sensor and the high dynamic range. The CAMARO converter box performs the complete Camera Link handling, all image processing and image control and the data conversion to the HD-SDI standard. The output data is delivered via 2 parallel 3 Gbit HD-SDI BNC connectors.

The CAMARO converter box turns analog cameras into digital ones
With the highly competent assistance of Basler and Easylook System’s main partner for FPGA programming and board design, DREAM-CHIP TECHNOLOGIES in Hanover, Germany, Easylook System was able to complete this project very quickly. Customers can today choose between two Easymag versions – one with a Basler aviator and the other with a Basler ace camera, depending on user requirements.

A second aim of Easylook System was to develop an extremely small POV (point of view) camera based on the Basler ace to save space and weight. The ace’s Camera Link interface was also customized to the requirements of the film market to enable it to deliver HD-SDI data. Gert Kappes, cameraman from Easylook System, explains: “The main advantages of the Basler ace are its compact size, the price, easy handling and the technical features, which are miles ahead of all similar products. We are currently offering the world’s smallest 2/3” camera head with a 2K resolution and a global shutter.”

The Basler ace became the smallest 2/3” HD/2K POV camera

The cooperation between Basler and Easylook System has yielded two new Easylook System products:

- The ace and aviator cameras with Easylook System’s converter board serve as the electronic heart of the new Easymag turning analog into digital cameras. They are used in all classical broadcasting/TV applications and in the movie industry.

- The Basler ace became the smallest 2/3” HD/2K POV camera. Mounted on a car, a bicycle, a boat, or a human being, the camera can deliver breathtaking pictures from exciting angles.

Gert Kappes, summarizes the project: “Basler implemented our ideas and non-standard wishes in customized camera firmware. We are very excited that we don’t need to develop an additional HD-SDI camera system anymore. Using the Easymag device with the customized Basler ace or aviator camera with HD-SDI is very convenient for users.”

Go to Easylook’s site for some impressive film samples: http://easylooksystem.de/index.php?option=com_content&view=article&id=66&Itemid=75

Technologies Used

- Basler ace acA2000-340kc camera
- Basler aviator avA1900-60kc camera
- Converter box with CAMARO board cam link to HDSDI converter with full image-processing
- Customized control software, image processing FPGA software from DREAM CHIP TECHNOLOGIES
- ARRI 16 mm cameras

More Information

www.EASYLOOK.tv