RICOH IMAGING Selects eSOL's Real-time OS-based Software Platform for PENTAX K-3 DSLR and GR Cameras

PENTAX K-3

GR

Tokyo, Japan. November 18, 2013 – eSOL, a leading developer of real-time embedded software solutions, announced today that RICOH IMAGING COMPANY,LTD. has adopted eSOL's eT-Kernel real-time OS-based software platform for use in its PENTAX K-3 digital single lens reflex (DSLR) and GR compact cameras.

The eT-Kernel Platform consists of the eT-Kernel real-time OS (RTOS), eBinder IDE, middleware components—including file systems, USB stacks, network protocols, and GUI—backed by professional services. eSOL's eT-Kernel Platform ensures real-time capability and reliability as well as faster development at a lower cost for RICOH IMAGING's high-quality, high-definition camera systems.

The PENTAX K-3 adopted an antialiasing filter-free design to deliver high-resolution,

fine-gradation images. It implements the world's first selectable anti-aliasing filter* simulator function for high resolution. RICOH IMAGING's unique technology allows users to easily toggle anti-aliasing on or off according to moiré control requirements. The K-3 camera's compact, lightweight, and sturdy body with dustproof, weather-resistant, and cold-resistant construction assures solid operation in the field. The GR compact camera features a large, APS-C-sized CMOS image sensor, permitting photographic sensitivity equivalent to DSLR cameras. TheGR is the world's smallest and lightest compact camera equipped with an APS-C sized CMOS image sensor**. RICOH IMAGING's new GR ENGINE V imaging processor offers high-sensitivity shooting with minimal noise.

The eT-Kernel real-time OS—which delivers fast boot time, fast response to interruptions, fast task switching, a compact memory footprint, and high portability—and its tightly integrated eBinder IDE were used to develop the PENTAX K-3. eSOL offers three scalable eT-Kernel profiles—including a POSIX-compliant RTOS and a process model-based RTOS with memory protection—to fit different system sizes and purposes. The eT-Kernel Multi-Core Edition for multi-core processors includes eSOL's unique Blended Scheduling™ technology, which permits the coexistence of symmetric multiprocessing (SMP) and asymmetric multiprocessing (AMP) subsystems for flexible system design. The eBinder IDE provides a variety of functions and tools designed specifically to facilitate the efficient development of high-quality RTOS-based software.

RICOH IMAGING's compact GR uses eSOL's PrFILE2/exFAT—its FAT12/16/32 and exFAT-compatible file system—to handle high-capacity media with more than 32 gigabytes, including USB flash drives and external hard disk drives. PrFILE2/exFAT,

which can process multimedia data files larger than 4 gigabytes stored in such media, replaces the functions of the PrFILE2 FAT12/16/32 and VAT-compatible file system. It is equipped with many features necessary for digital cameras, including a high-speed file pointer backward seek function for fast video or music playback. PrFILE2/exFAT also minimizes the destruction of data in the media—even when power is lost or the media is ejected unexpectedly while accessing a file. In addition, PrFILE2/exFAT offers multi-language support, a dynamic character code conversion function, and UNICODE support, eliminating the need to sell or ship multiple variants of a product when serving multiple regions.

“We are very pleased that RICOH IMAGING selected our eT-Kernel Platform for their PENTAX K-3 and GR,” said Hiroaki Kamikura, General Manager of the Embedded Products Division, eSOL. “The eT-Kernel Platform has been adopted in many digital consumer products. We believe RICOH IMAGING liked the eT-Kernel Platform’s many proven features and its reliability. eSOL will continue to improve the capabilities of its industry-leading eT-Kernel Platform and provide software developers with real-time capability along with high quality—all backed by comprehensive support.”

The eT-Kernel Platform, widely used in digital consumer products, game consoles, mobile phones, in-vehicle infotainment systems, and office automation equipment worldwide, is known for its proven real-time capability, reliability, and quality.

Resources:

Learn more about the PENTAX K-3: http://www.ricoh-imaging.co.jp/english/products/k-3/

Learn more about the GR: http://www.ricoh-imaging.co.jp/english/products/gr/

Learn more about RICOH IMAGING: http://www.ricoh-imaging.co.jp/english/

eSOL success stories: http://www.esol.com/successstory/rtos_middleware.html

About eSOL

eSOL is a leading embedded software developer that enables customers to accelerate the development of applications based on high-end single-core, multi-core, and many-core embedded processors. eSOL's advanced, scalable, multi-profiled real-time operating systems are tightly integrated with development tools and middleware components to create flexible development platforms used by OEMs and ODMs worldwide in competitive vertical markets such as automotive, consumer electronics, industrial and medical equipment, and aerospace. Founded in 1975, eSOL is based in Tokyo, Japan.

For more information, please visit http://www.esol.com/

Notes

* The PENTAX K-3 is the world's first interchangeable-lens camera to offer this feature as of October 2013, based on RICOH IMAGING COMPANY's research.

** The world's smallest and lightest camera equipped with an APS-C size CMOS sensor as of March 1, 2013(Based on RICOH IMAGING COMPANY's research)