New Products

Open-Source Programmable Camera

Scientists at Stanford have developed an open-source camera designed to let programmers change the hard-coded camera features. Stanford professor Marc Levoy is planning to develop and manufacture what he calls the Frankencamera. Many of the camera’s features, such as focus, exposure, shutter speed, and flash, would be changeable based on software that programmers anywhere could develop.

Computer science graduate student Andrew Adams, who helped design a prototype of the Stanford camera, imagines a future where consumers download applications to their open-platform cameras the way Apple apps are downloaded to iPhones today.


Digital Stories

A line of books aimed at young readers combines classic children’s stories with digital viewing options. Moving Picture Books’ digital stories can be purchased as DVDs or downloaded directly to iPads, mobile phones, computers, and other mobile devices.

Each of the 44 stories offered by Moving Picture Books, including eight new Sesame Street titles, can be viewed with English or Spanish voiceover, with or without the read-along English text displayed on the screen. The pacing of the storytelling is at a rate for children to follow along with the text. The available stories include classics, new stories written specifically for Moving Picture Books, bible stories, and holiday stories.

Moving Picture Books are available at Wal-Mart stores, online at http://www.MovingPictureBooks.com, and at online retailers including iTunes.

Processor Licensed to Novatek for Next-Generation SoC Designs

MIPS Technologies announced that Novatek Microelectronics has licensed the MIPS32 24KEc processor core to power advanced chip designs for multimedia devices for the digital home.

The MIPS32 24KE core family is designed around the 24K microarchitecture, incorporating the MIPS DSP application-specific extensions. Reportedly, these extensions improve signal processing performance up to 200 percent over a range of embedded applications when compared to RISC implementations.

In addition, the 24KE family, designed to reduce overall SoC die area, cost, and power consumption, is supported by a suite of software-development tools, the MIPS DSP Library, and a third-party DSP applications network. The software tools are designed to give SoC developers the ability to work in a single environment while integrating DSP functionality onto a 24KE core.

For more information visit http://www.mips.com.

Image-Processing Technology Reduces Power Use

Himax Technologies has introduced Infinity Color Technology (iCT), the company’s proprietary image-processing technology designed to enable power savings for TFT-LCD TVs and monitors while enhancing image quality.

Power savings is an important concept in the flat-panel industry. For example, the California Energy Commission recently approved an energy efficiency standard for televisions that will require new TVs sold in California to consume at least 33 percent less electricity. However, current power-saving technologies have a trade-off among power savings and image quality.

TFT-LCD backlights typically maintain a constant brightness, regardless of the displayed images. A pure digital approach saves panel power but leads to loss in gray scales while adjusting gamma curve and thus has produces an undesirable image quality. Himax’s iCT, compared to conventional pure digital image processing in timing controller and video processor, is a mixed-mode image-processing technology designed to enhance image quality while saving up to 50 percent of panel power for certain image content.


Radio-Frequency Chipset for Wireless Video

Maxim Integrated Products announced a new line of high-performance RF chipsets for wireless video applications. Maxim is partnering with Amimon to offer a joint reference design based on the Maxim MAX2850/MAX2851 WHDI RF chipset that interfaces directly with the Amimon AMN 2120/2220 Wireless HD Interface (WHDI) baseband chipset.

The Maxim-Amimon WHDI chipset enables wireless streaming of uncompressed 1080p/60Hz HD content. This chipset can be embedded into electronics devices such as LCD and plasma HDTVs, multimedia projectors, notebooks, audio/video receivers, Blu-ray Disc players, set-top boxes, game consoles, DVRs, PCs, and HD video accessories.

Maxim’s MAX2850/MAX2851 chipset is designed to deliver range and throughput performance required for multiroom wireless connectivity at ultra-low-power levels.

For more information visit http://www.maxim-ic.com.

Farshad Fotouhi
Wayne State University