

Arecont commits to H.264 standard

Megapixel camera maker touts 25x greater compression than MJPEG

By L. Samuel Pfeifle, editor

GLENDALE, Calif.—The year 2008 is already one of significant change for IP camera maker Arecont Vision. Recently ensconced in new offices here, the company has now released what it says is the first full line of IP megapixel cameras using the relatively new H.264 compression technology.

A version of the MPEG-4 compression technology, H.264 offers “significantly more efficient compression,” said Arecont chief executive officer Michael Kaplinsky. “It’s a more difficult standard to implement, but it gives end users the benefit of lower storage and bandwidth requirements. I believe everyone is going to standardize to H.264, for no other reason than it’s most beneficial for megapixel cameras, because they take more bandwidth and require more storage. There are not that many MPEG-4 megapixel cameras out there right now.”

Many industry technologists have been touting H.264 for the last year (it is the technology used by the popular Quicktime application, for example), but have also been clear about its drawbacks. For instance, Dennis Charlebois, then vice president of sales and marketing at Broadware, called H.264 a standard “with a lot of promise,” in March of 2007. But, he said, “it’s not quite there yet. It’s an extremely difficult algorithm to decode ... It requires a lot of computing power.”

“H.264 will take off,” agreed Chuck Wilson, executive director of the National Systems Contractors Association, “only when we have the processing power and the new required DSP chips.”

Kaplinsky said Arecont has solved the necessary processing power conundrum. “A commodity [chip] doesn’t exist to support H.264,” he allowed. “So the challenge was to develop the H.264 compression that would only have an incremental

increase in our camera pricing. Otherwise, the advantages of megapixel cameras would be negated.”

So Arecont used its expertise in the field of FPGA-based hardware image processing and the resulting proprietary H.264 encoder implemented on a single FPGA delivers 80 billion operations per second, a feat Arecont says would require 25 Pentium computers. The compression

improvement, it says, with high video resolution is up to 25 times greater than conventional MJPEG compression when capturing a typical street surveillance scene with moving vehicles and people. As a result, a high-quality 3 megapixel video stream at 20fps can be as low as 2 Mbps.

“We see much demand for high-resolution models,” Kaplinsky said. “End

users want high details. That’s why they go for the high-end models.” Arecont expects its new H.264 cameras to make those high-resolution cameras even more attractive. The H.264 technology will at first be offered as an add-on option, said Kaplinsky, starting with the single-sensor cameras.

As for compatibility, Kaplinsky said Arecont has alerted its NVR partners and is making samples available for integration. “The advantages are so obvious,” he said, “there’s no question in NVR providers’ mind that this is where the market is going.” **SSN**

Linear rebrands

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thing about all of these different names. If you’re a salesman for this company and you have to walk into a customer and talk to him on Monday about telephone entry systems for a high rise, and you tell him you’re selling the Linear brand of telephone entry and you have five different products in that category, you have him focused on the fact that you sell Linear systems.” But if you start cross-selling AirVac and M&S and OSCO, “He thinks you’re a manufacturers’ rep, just earning commission,” Stevens said. “Now, if you say, ‘Hi, I’m with Linear and we’re manufacturers of all these products, for both residential and commercial applications,’ now the guy’s thinking, ‘oh, you guys make a lot of stuff.’”

“And that’s what we hope will happen,” Stevens said. “We want to become a household name.” **SSN**