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Publisher's Viewpoint: Arecont Stakes its Claim in History

The year 2007 is nearly history. Much has happened from both mergers and acquisitions to new product offerings to major technological advancements. I was impressed in particular with one new product while combing the show floors of IFSEC in Birmingham, England. The SurroundVideo @ Network Camera from Arecont Vision had attendees talking. The Arecont Vision booth was a flurry of activity and it was there I met Dr. Vladimir Berezin, president of the company who holds a number of patents. I visited Arecont Vision in Altadena, Calif., recently to see Vladimir and it was there I also met Dr. Michael Kaplinsky, chief executive officer.

Harlick: *Arecont has an aggressive plan to educate the market on the advantages of megapixel cameras. How do you envision these technologies changing the business?*

Michael Kaplinsky: The advantages of megapixel video are so obvious that the technology is becoming mainstream faster than anyone expected. We have already seen large-scale installations with entire service station chains and even cities using thousands of our megapixel cameras. I like to compare the analog-to-megapixel transition to the switch from black-and-white to color. Color provided more information and the enhanced ability to identify objects and discern the details of a scene. Similarly, megapixel video offers the ability to dramatically improve the forensic quality of video.

The technology has matured to the point where megapixel camera price is similar to high-quality analog camera prices. Additionally, one megapixel IP camera can replace many analog cameras while providing the same coverage area, reducing system cost.

Harlick: *Your technology offers many advantages, but what are some of the barriers we still must overcome?*

Kaplinsky: Many barriers have been addressed but some remain. The first IP cameras were characterized by high cost, slow frame rates, poor low light sensitivity and large physical dimensions. These factors impeded the initial growth of IP video. Modern megapixel cameras are very different from their earlier predecessors. The cameras have become extremely compact; with the largest dimension no more than three inches, a perfect fit with popular industry domes and enclosures.

On-camera processing of multi-megapixel video requires many billions of operations per second. The advances in programmable logic has enabled Arecont Vision to develop an extremely cost-efficient massively-parallel image processing technology, MegaVideo @, that delivers multi-megapixel images at video frame rates, allowing us to offer HDTV cameras at analog price levels.

Multi-sensor camera architectures have been developed to reduce the cost per area under surveillance further. A good example is the Arecont Vision's 180 and 360 degree panoramic cameras. These SurroundVideo @ cameras multiplex multiple images over single network connection delivering panoramic imaging at the fraction of the cost of multiple cameras.

Arecont Vision has addressed sensitivity challenges with innovative cameras such as our dual-sensor day/night camera developed to automatically select between a 3 megapixel color sensor in the day and an 1.3 megapixel monochrome sensor at night. Using a sensor with much larger pixels under low light conditions results in extreme sensitivity in near-dark conditions.

With the size, speed, cost and sensitivity of megapixel IP cameras having been addressed, the only remaining barrier to a widespread adoption is that the technology takes more bandwidth and storage to transmit and save megapixel images. Most of the camera makers have been working on transitioning current MJPEG compression to MPEG. I would expect complete lines of H.264 megapixel cameras to appear on the market as early as Q1, 2008.

Harlick: *What does the future hold for Arecont?*

Kaplinsky: When we started the company five years ago we took a gamble on the where the direction of surveillance was headed. Now we know we are in the right place at the right time. Demand is exploding and over the last three years we were able to double our sales every six months. We expect this trend to continue. Having complete control over our intellectual property will enable incremental upgrade to H.264 compression in the near future. The megapixel is here to stay—it's a megapixel surveillance revolution.

Peter D. Harlick, Publisher

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