

Sensio Discusses Products and Progress

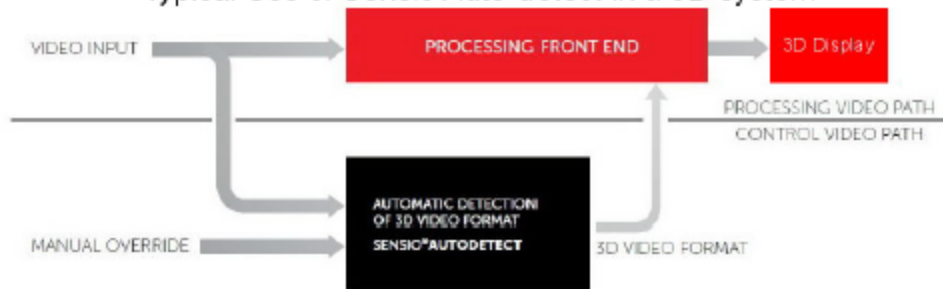
Insight Media had a chance to talk to Richard LaBerge, executive vice president and chief marketing officer for [Sensio Technologies](#) (Montreal, Canada), in their suite at the Flamingo at NAB. While Sensio had been discussed earlier in the Feb. 2011 and Dec. 2010 issues of *LDR*, there was enough new information to justify the visit.

First, Sensio had bought the IP portfolio of Algolith, which consists mainly of four patents and nine patents pending, as well as Algolith's image-processing technologies, source code and know-how. The Algolith algorithms are said to complement Sensio technology, not compete with it. Cost of Algolith was not released but was said to be less than seven figures.

"Algolith's noise-reduction and compression-artifact-reduction algorithms are among the best in the industry," said Étienne Fortin, CTO at Sensio. "With the advent of connected TVs, low bit-rate, noisy video will be widespread, and we foresee a high demand for this capability from our current customers in the consumer electronics market."

While Insight Media wrote about Sensio auto-detection software in February, we had not seen it in operation. This software will detect 2D images or 3D images encoded in side-by-side, top/bottom or Sensio Hi-Fi compression based on quincunx sub-sampling. This is needed because there is no current way for video to be tagged with a file type, and it is up to the consumer to use the remote control to set the 3DTV into the correct mode. This auto-detect software seems to work reliably on a variety of content types. According to LaBerge, the

Typical Use of Sensio Auto-detect in a 3D system



detection rate is about 99.9% — from the consumer point of view a very high detection rate is needed to make auto-detection invisible, and 95% is nowhere near good enough.

LaBerge explained that Sensio wants to be seen as more than a supplier of 3D compression based on quincunx sub-sampling. Rather, he would like his company to be perceived as a 3D company with a broad range of software available. The company is prepared to offer its software to customers as three different packages, depending on the customer's needs.

The first-level package includes the basic decoder including auto detection. He gave Vizio as an example customer, since Vizio has the Sensio decoder in all its 3DTV sets. This package also includes a 3D-to-2D conversion system that allows viewers to see 3D programs in 2D on their TV sets. This 3D-to-2D conversion is based on a 2009 Sensio patent.

The second package includes everything in the first package plus some additional goodies for high-end sets and professional systems. These include noise reduction and cross conversion, such as 1080→720, SD→HD, etc. LaBerge pointed out it was better not to try to cross-convert the 3D frame packed files, especially the Sensio Hi-Fi files with quincunx sampling. The left and right images should be unpacked before format conversion.

The third package includes the other features plus the Sensio encoder.

LaBerge also discussed the next-generation of Sensio encoding technology, called X-Fi for eXtra Fidelity. He said it was tested but not used for the FIFA World Cup 3D backhaul in 2010. For that, they used the Hi-Fi system.

According to Sensio, their technology was incorporated in several products shown at NAB. It was incorporated into products from Miranda Technologies and International Datacasting and was the enabling technology for applications from Gennum Corporation and Globecomm systems. —*Matthew Brennesholtz*

Sensio Technologies, Richard LaBerge, +1-514-846-2022, Richard.LaBerge@Sensio.tv