

THINKING BIG

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Spatial View CEO Beat Raemy has spearheaded the development of technology that allows existing products to display 3D images without glasses.

Geared to consumers, Spatial View's 3D products also appeal to car makers and oil and gas industry

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If the "wow" factor is a guarantee of success, Spatial View will be huge. The interior of the company's Front St. headquarters is crammed with electronic devices – flat-panel plasma televisions, PCs, video-game monitors, fixed-image monitors and hand-held devices – all projecting images, animations and videos in three dimensions. Instead of being overwhelming, the illusion is intriguing. It makes one wonder why everything isn't in 3D.

Spatial View chief executive Beat Raemy is planning for the time when everything will be in 3D.

"It's a natural progression, first we had black-and-white images, then colour, then high-definition and next will be 3D; we see in 3D, so why is our media 2D?" he said in an interview. "It might not be here tomorrow, but it is coming."

That's why Raemy's in the business of making 3D easier. Spatial View's primary industry is designing and manufacturing devices that allow existing products to display 3D images, animation and videos – without the use of those pesky cardboard glasses.

Spatial view is offering a new twist on very old technology. Stereoscopy – the concept of showing each eye a slightly different image to produce a 3D effect – was invented in 1840. The concept became faddishly popular in movie theatres in the 1950s with the advent of disposable glasses with blue-and-red lenses that allowed each eye to see a slightly different image.

Since those early days, 3D has come and gone in mainstream media and has shown some success recently; this year's *Journey to the Center of the Earth* grossed more than \$101 million (U.S.) in Canada and the United States despite middling reviews.

"3D is coming; Samsung has already sold more than 2 million 3D-ready TVs and the Americans are building 3D-capable cinemas as fast as they can," said James Stewart, president of Toronto-based Geneva Films, which has worked extensively in 3D.

"There's even a TV network in Japan that broadcasts in 3D part of the time and James Cameron's next film, the \$250 million *Avatar*, will be in 3D."

But people have always complained about the goofy glasses. That's why Spatial View has eliminated the need for them. The company has developed clear filters that fit over the top of an existing video screen to separate the images, so each of the viewer's eyes receives a slightly different image.

"People aren't aware that you can get the same sort of experience on a flat-panel display without wearing glasses," said Brad Casemore, Spatial View's vice-president of business development.

"This is an issue that we're tackling with our industry partners – the likes of NVIDIA, IBM and Adobe."

"It started back in Germany, a professor friend of mine developed the concept, but he knew nothing about business," Raemy explained. "So, we bought it from him and started Spatial View."

Although some R&D is still carried out in Dresden, Germany, Spatial View's world headquarters is located in Toronto and it has recently opened offices in Halifax and San Francisco. The company employs about 30 people worldwide.

"They are on to something very good," said Stewart. "What's happening in the 3D world is happening very quickly and they are at the front."

And the company's research continues to be forward thinking.

Spatial View has developed software that allows a PC's built-in camera to track the viewer's eyes in order to adjust the picture so the 3D effect is optimized. That evolved into a two-camera system that tracks the users' fingertip, allowing it to be used as a video-game controller.

"It's still in development," said Raemy. "But we do play with it a lot in the office."

Spatial View also currently offers a variety of wholesale products adapted to fit over standard PC monitors for PCs from manufacturers including Dell, HP, Sony and Lenovo. The screen slides on to the monitor to display content in 3D and slides off for normal display. The same can be done for commercially available TVs and laptops.

While Spatial View products are already available on shelves at Mediamarkt – a large European electronics retailer – Raemy hopes to convince PC makers to bundle his products with theirs.

He has his eyes especially fixed on Apple Inc., a company he said consumers associate with innovation.

"We're going to Macworld with a strong presence," he said.

One thing he'll want to show off is a small overlay the company has developed for the iPhone that "gives the man in the street 3D capability in his hand," said Raemy.

He's convinced Stewart. "As a filmmaker, I wondered who'd want to watch something on such a small screen," he said. "But the iPhone is actually driving the market; its tech is so good and it's hooked into your credit card the way a TV never could be – it just makes it all so easy."

But Spatial View is not limiting itself to consumer applications. Pharmaceutical sales representatives often have to carry cumbersome models with them because of the three-dimensional nature of molecules.

"We're talking with some of them to replace those models with 3D-capable laptops," said Raemy.

He has also received interest from the oil and gas industry – "everything they do is in 3D," he said – as well as the automotive industry, which uses 3D when it comes to rendering and designing new products.

Raemy realizes Spatial View will only go as far as the content allows it to. And he's depending on younger consumers to drive that by creating new ways to use the technology.

"There are plug-ins for Flash that allow you to create in 3D," he said. "Kids these days are used to creating much of their own content and they want to create in 3D, watch in 3D and play in 3D."

Stewart maintains the 3D content market is still in its infancy, but is about to take off. "Once they start watching live sports and live news in 3D, people will not want to go back," he said. "They'll want everything to be in 3D."