Spin-off Commercial Success

Teledyne BlueView Seeded From Sonar Studies at APL-UW

Narrator: Images from the deep....
Images painted by sound....
Sophisticated acoustic sensors making possible what had been impossible....

Lee Thompson: One of the places that we started was underwater vision; really 2-D streaming imagery. Those products allowed operators of ROVs or divers to work in any water clarity conditions. So black water conditions, where you can't see your hand in front of your face. Those guys can put on a heads-up display, hook it into the sonar and spin around, effectively seeing under water.

Narrator: Underwater eyes, now widely employed for port security, by the miliary, and for underwater construction by the oil and gas industry.

Thompson: We're producing a three-dimensional measurement system.

Narrator: As system accurate enough for spool piece metrology: the complex connection of undersea pipe sections.

Thompson: You miss one of these spools and that's about a million dollars of expense.

Narrator: BlueView founder Lee Thompson tells how some passing salmon inspried the idea that became BlueView.

Thompson: We were working on some applied research to develop high-resolution imaging systems for Navy projects — small-size, low-power, high-performance imaging systems.

I remember in particular one day when were were testing down at the barge at the university and there were about 100 salmon underneath the bridge that we were imaging — watching them swim in real time. I remember looking out the window of the barge and the water was just flat calm. You had no idea the salmon were there.

I realized that we had something really different and significant there.

Narrator: What Lee Thompson and his colleagues had was new technology.

Thompson: The previous approach was a mechanical sanning approach. You had a windshield wiper effect where it took 1 to 2 seconds to create an image — a single frame. With our technology we are getting 15 frames per second. So you are getting a single image every time you transmit it so you get streaming vision. You could watch motion, so moving targets didn't blur.

Narrator: That key moving technology was developed by Thompson and his colleagues at APL-UW.

Thompson: APL is a great environment — very collaborative and collegiate, with a tremendous excitement around discovery. But not just discovery for its own sake, but discovery for application. Hence, the ***Applied*** Physics Lab.

There was a lot of support and a strong interest in commercialization.

Narrator: In 2012 BlueView's succcess led to acquisition by Teledyne Technologies.

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Jim Davis: BlueView brings this wonderul area of acoustic imaging to our portfolio of underwater acoustic technologies.

Narrator: The Teledyne alliance quickly expands BlueView's commercial footprint and resource base.

Thompson: These was a sense of being a kid in a candy store, because we had all of these brand new, cool technologies and we were encouraged to work with those other groups to develop synergies. We have; it's been great.

Narrator: Teledyne BlueView's ascent is reflected by the progress Lee Thompson and his underwater eyes have made in less than a decade.

Thompson: Initially we were able to image out a couple hundred feet or a little better. We've extended that through successive generations to where now we can see out to about 1000 feet, depending on the target.

So we've been able to significantly improve over time. And we have yet another generation of electronics going into our new products right now.

Science at Work for You.

This is APL The Applied Physics Laboratory at the University of Washington in Seattle.