Interview

David Lane, CEO • SeeByte

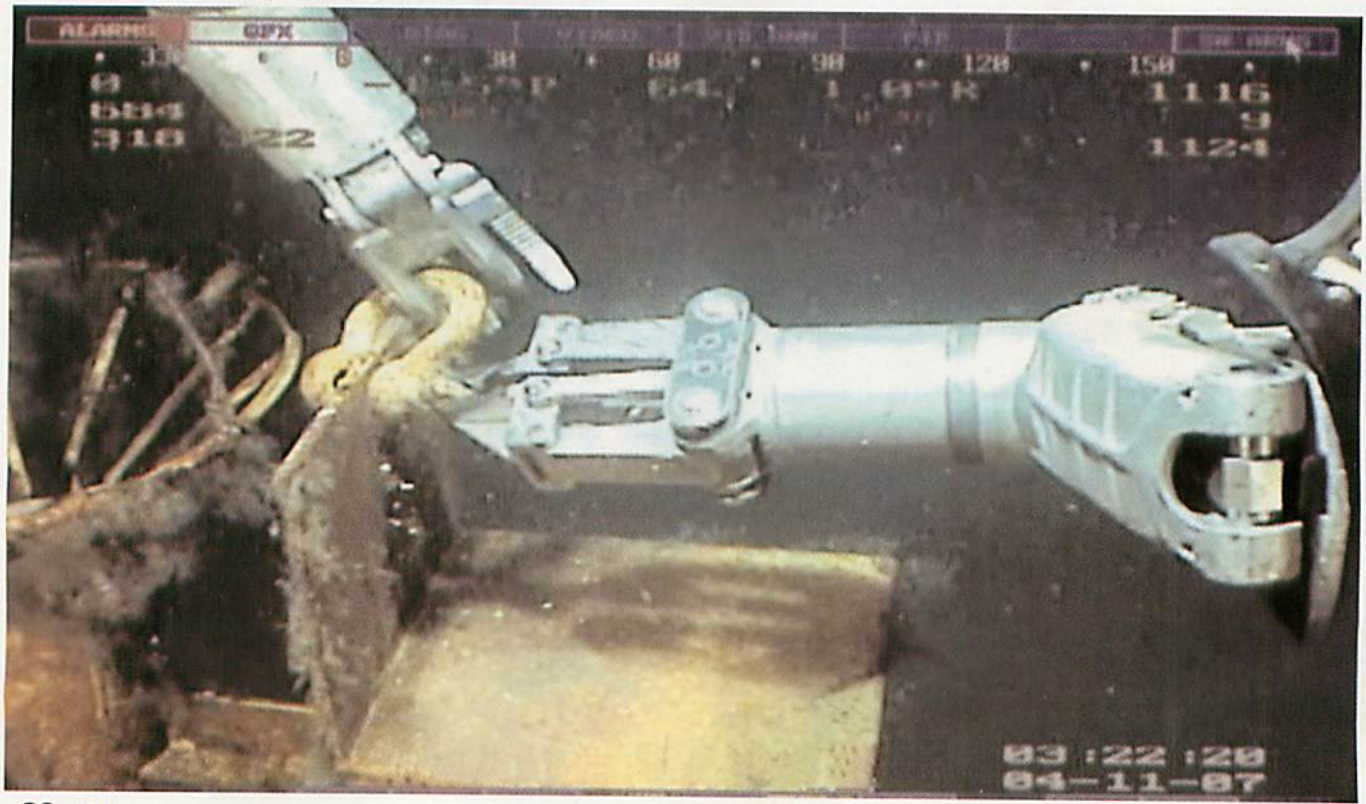
What is your assessment of the maturity of the AUV technology and market, in general?

Lane The development of AUVs and their commercialization for the military and offshore markets has been a slow process. We are still on the curve of acceptance, as although there are several vehicles technologies in existence that have been commercialized, they have not been sold and are not selling as was predicted in the late 90s. The market remains cautious, as is the nature with new technology. Although far from reaching market maturity, subsea technology has to a certain extent shaken off many of the doubts about reliability that has held it back and has made the leap into the mainstream, becoming an enabler for deep-water projects and a provider of cost-effective solutions.

What technological benchmarks are critical?

Lane It will all come down to the SMARTS. Hardware that can provide endurance in extreme environments is already available. But, true autonomy is still a good way off. By true autonomy I mean an ROV that can reason and intervene without any direct human inputs. With SMART ROVs the pilots will become mission observers. SeeByte has been working hard at delivering true autonomy. We will (have) sustained investment over the next three years; investment (that) will be used to provide enhanced awareness of the ROV/AUV environment and to develop and test 3D deliberative planning and mission

SeeByte announced the start of SMART UUV 3000; a three-year program aiming to productize smart Unmanned Underwater Vehicle software solutions that will enable Remotely Operated Vehicles (ROV) to automatically tackle complex tasks such as inspection of risers, jackets, manifolds, chains, wellheads, rigs, ship hulls and harbors including searching complex areas and intervention tasks on known structures.



execution. Our plan is to provide true autonomy.

What are your strengths?

Lane SeeTrack Offshore offers true Dynamic Positioning for ROVs: the ability to station-keep or move precisely relative to the ground and also, by using SeeByte's smart sonar-servo technology, relative to moving targets. The interface has been built using advice from novice and experienced pilots alike and as a result we offer the market's most intuitive and successful interface. SeeTrack Offshore has been integrated to new ROV systems and has also been retrofitted to a wide range of existing ROVs. The system ensures that commissioned ROVs are brought up to date with state-of-the-art technology.

What do you consider the biggest challenge in the coming year?

Lane As a software product manufacturer; we have found that one of our biggest challenges has been to make the industry understand the benefit of our business proposition. We have years of experience and a technological edge with a proven record of improving operations: making them safer, quicker and easier. But, the manufacturers of UUVs perceive software as something that they should be developing in-house. The consequences of this decision are detrimental to all. As opposed to contributing towards increasing the pace of innovation, the manufacturers of UUVS by deciding to play catch-up to us, the software house, play an active role in actually slowing down the take up of the technology. Fortunately we have for some time seen signs that things are changing for the better and we are becoming the partner of choice for leading ROV and AUV manufacturers.

How is your company investing today to improve your position in the market?

Lane Our people have played an instrumental part of ensuring that SeeByte maintain its technology lead. I am aware that SeeByte will improve business results, by optimizing the skills and capabilities of our staff, so for this reason, we are investing in people: attracting personnel with expert skills and retaining the expert staff already employed. The skills and capabilities of our staff will ensure we maintain the efficiency of current and new operations, contracts and projects and that we maintain the pace at which we advance the technology.

SeeTrack Offshore

Technical specifications SeeTrack Offshore interfaces to the ROV control and navigation sensors to provide true Dynamic Positioning. SeeTrack Offshore automates the ROV control process. It saves time over conventional systems making operations quicker, safer and easier. ROVs can manoeuvre through a mission ignoring the effects of currents and are less likely to hit structures in the seabed while taking excellent images from a distance. True Dynamic Positioning and Real-time Monitoring are at the core of SeeTrack Offshore. The product offers the following features:

- Hover: In this mode the ROV maintains position when the 'hover' button is pressed.
- Auto Hover: In this mode the ROV enters automatic hover when no control inputs are detected.
- Auto Fly: In this mode DP is in total control when using the joystick or the DHI.
- Cruise: In this mode the ROV moves at constant speed, depth/altitude, heading and forward velocity.
- Moving Map: The display moves in real-time to aid piloting.
- Chart Overlay: The moving map can overlay charts in DXF format.

SMART UUV 3000

SeeByte announced the start of SMART UUV 3000; a three-year program aiming to productize smart Unmanned Underwater Vehicle software solutions that will enable Remotely Operated Vehicles (ROV) to automatically tackle complex tasks such as inspection of risers, jackets, manifolds, chains, wellheads, rigs, ship hulls and harbors including searching complex areas and intervention tasks on known structures. This $3m enterprise will benefit from technology development programs currently being undertaken by SeeByte for customers such as BP and the US Office of Naval Research. Ioseba Tena, Product Manager at SeeByte, said "Following the successful launch of SeeTrack Offshore, a true Dynamic Positioning (DP) system that can be easily retrofitted to existing ROVs; SeeByte wanted to ensure that future versions of the software would benefit from the latest technological breakthroughs, and therefore made the commitment to SMART UUV 3000.

Our aim is to continue making ROV operations safer, quicker and easier by automating the ROV control process using state-of-the-art software." "Our current capability includes software to carry out completely autonomous inspections of risers using a mechanically-scanned sonar and the standard SeeTrack Offshore system. In recent tank and offshore tests we have also made an ROV automatically orbit and inspect risers and complex shapes using an acoustic camera to control the ROV. SeeByte is currently carefully studying intuitive means for the pilot to interact with both the ROV and the software."

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