Division: Survey Equipment

Unique Group provides high accuracy underwater laser scanner for survey

Client	DOF Subsea
Country	USA
Date/ Year	2018
Service details	Unique Group represents Newton Labs M3200UW - 3200 Meter Depth Rated Underwater Laser Scanner in Gulf Coast, USA. It is specifically used to gather highly accurate, sub-millimetre, non-contact measurements in subsea environments. Get in touch with us : survey@uniquegroup.com

Summary of the Project

Unique Group delivered Newton Labs M3200UW Underwater Laser Scanner for a high accuracy laser survey of a drill centre by DOF Subsea.

Client Requirement / Problem

The client wanted an underwater scanner to perform survey of a drill centre in the Gulf of Mexico. However, the client faced issues with several other products in terms of integration with the existing systems and the ROV previously. So, Unique Group was asked to provide a product which would be compatible.

Unique Solution we delivered

We understood the client specifications and decided to provide Newton Labs M3200UW scanner for DOF Subsea's requirement. The scanner was deployed at a depth of 4,500 feet on a work class ROV and the fixed laser line mode was opted as it could be combined the location data provided by an IMU and navigation software for coordination of all sensors and rendition of the results. The scanner also had the option of internal motor scanning to provide Sub-Millimeter accuracy, if needed.

The M3200UW underwater scanner operates by optical triangulation, where the projected laser line sweeps the target surface and the high-resolution camera, centered on the target, captures any deformation of the line and sends the information to the control console where the Newton-developed algorithms create and record a point cloud, enabling precise, post-session dimensioning using industry standard three-dimensional software.

Benefits delivered

- Easily integrated with the ROV and the other existing systems
- Shortened scanning time and increased accuracy.

- CAD Model Resolution Scans down to 0.02mm delivered
- Digital data is transmitted for permanent storage and later analysis.
- Conveniently mountable on any ROV/AUV.
- Technical support throughout the project

Client Feedback

"We were very impressed with the results of these scans," said Haseeb Rafeek, Technical Manager Houston DOF Subsea "Not only did the measurements tie-in with respect to the design drawings, but there was no evidence of distortion or curving of the ends of the laser lines at depth that have been reported with other underwater laser scanner makes," Haseeb went on to say, "This was our first use of a Newton Labs Underwater Laser Scanner and we were very pleased with how easy they are to use. We would like to thank Unique Group for suggesting this technology for our requirement"