Dolphin is an integrated navigation and data management system designed specifically to meet the demands of multi-vessel distributed ocean-bottom node operations. Dolphin delivers a unique blend of centralization, data management, advanced positioning techniques and flexibility which leads to improved quality, efficiency and operational cost reduction. The system enabled fleets being equipped with multiple shooters and working concurrently in a non-stop production mode on large spreads of cables/node lines. New techniques such as "Stagged Source" and shooting on irregular pre-plot lines in different modes was made possible. Dolphin has successfully integrated USBL system for use on node-based OBN operations.

Some of the features within Dolphin include:

KEY FEATURES

- **Fault-tolerant radio networks**: Every craft is connected by MIMO Mesh radio link network, supporting up to 20Mb/s at ranges up to 40+ km.
- **Total integration**: Recording systems, source systems and navigation sensors can be fully integrated along with a wide range of onboard systems such as acoustic positioning and identification systems, Gyro, Echo sounder, LBL/USBL systems, autopilot controllers, gun controllers.
- **Multi-Shooting & Deploying modes:** Support the double & triple shooting mode, as well as 2D/3D/4D operation mode.
- **Distributed synchronization**: 10-microsecond event synchronization is distributed throughout the fleet to provide shot control, pinging control and timing QC.
- **Pre-plot Management:** Support both regular pre-plot lines and non-continuous points.
- **Standard Navigation files**: We can record the international standard data format, include SPS、P1\90、P2\94, meanwhile we can provide data processing results and quality analysis.
- **HSE management**: GIS based centralized vessel tracking provides exclusion management, safety monitoring and an audit trail.

Dolphin system hardware configration

Comprehensive QC facilities