MakaiLay Commissioned by Prysmian Group on Cable Laying Vessel Giulio Verne

A best-in-class cable deployment control software MakaiLay was commissioned on the cable laying vessel Giulio Verne in November 2017 by the Prysmian Group, the world leader in the energy and telecom cables and systems industry. Giulio Verne is a DP2 cable laying vessel built to tackle the most challenging worldwide subsea operations and interconnections. It is expected that MakaiLay with its power-cable-specific module will be used by Giulio Verne when it starts working on the North Sea Link installation. North Sea Link is a subsea power cable interconnector between Norway and UK and will be the longest subsea interconnector in the world upon completion in 2021.

“We made it our priority to extend our popular real-time submarine cable installation management software to submarine power cable installations and we are excited that an industry leader like Prysmian Group has decided to use our software,” said Dr. Jose Andres, President Makai Ocean Engineering, Inc. “We have added specific tools to satisfy the unique demands of power cable installations and we will continue to enhance the software as we receive feedback from our installation partners.”

MakaiLay accurately calculates the shape of the cable in the water column and the condition of the cable near the touchdown point and displays this information in real-time. To accomplish this, MakaiLay integrates data from all the typical instruments available on a vessel, such as navigation (GPS, Gyro), cable data (tension, cable counter & length), currents (ADCP), and bathymetry. This information, together with a 3D dynamic model of the cable provides key information to the installers to properly install the cable along the route with the proper tensions.
The Power cable module includes a collection of tools that were developed for addressing specific issues faced by power cables during installation. Some of the tools included are:

- Span Analysis tool to analyze the risks of cable free spans along the route.
- Heave Analysis tool to understand the cables’ response to various sea-states.
- Auto-Tension feature to maintain proper bottom tension during installation.
- Tide height correction feature to account for large sea surface height changes.
- Integrating measurements from touchdown monitoring tools (e.g. ROVs).

MakaiLay’s new 3D Viewer showing the vessel, plough and cable shapes for progressive time steps seen behind the vessel. Relevant GIS data can be imported, such as digital terrain tiles on the bathymetry and aerial imagery overlay on the terrain in the background, as is shown here.
ABOUT MAKAI
Makai Ocean Engineering Inc., is a Hawaii-based ocean technology company and the producer of MakaiLay, an advanced subsea cable installation software. MakaiLay enables users to lay submarine cables with the highest level of accuracy, speed, safety, and reliability possible today, dramatically reducing the risk of cable failures. The software has been rigorously tested and validated over 30 years and is used by over 80% of the global fleet of telecom cable ships on countless commercial lays and military installations to successfully install well over 500,000 km of cable worldwide.

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