

Enabling autonomous hydrographic surveys through features for automatic and remote operations

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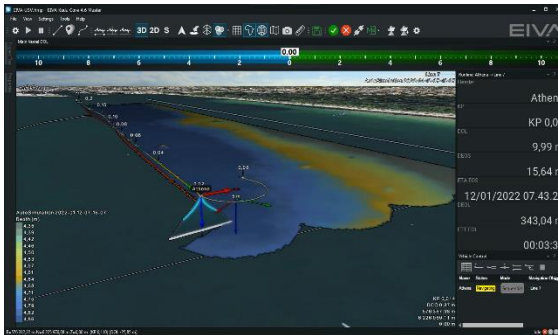
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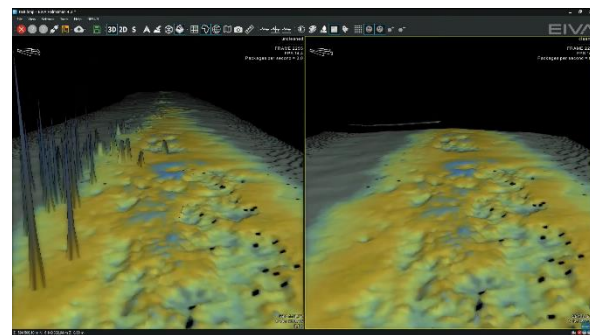
To achieve low carbon hydrographic operations, as well as save time and costs, there is increasingly a focus on performing autonomous operations – in particular, automation and remote control. EIVA's advanced hydrographic survey software, NaviSuite Kuda, provides software features for autonomy – by supporting remote operation through autopilot and remote control capabilities, as well as enabling a high degree of automation every step of the way from survey planning to data processing.

Automation of surveys is achieved through software tools which can, in real time, plan runlines to optimize survey area coverage, perform onboard data cleaning, register and classify observations, as well as automate entire data processing workflows. With these tools for automation, hydrographic surveyors efficiently perform large surveys yielding precise results – which require minimal man hours and cost.

To make autonomous operations accessible for all sizes of survey setup, EIVA tailored this advanced software bundle into an entry-level variant: NaviSuite Kuda Core. This variant provides advanced tools within a simplified user interface, so it is easy to configure and run from a single display. If users scale up operations, for example by adding remotes and a subsea vessel, the software easily scales up with them. This means NaviSuite users can start small and grow, while using the same software supporting autonomy.



The Coverage Assist tool, shown here, calculates optimal runlines and turns in real time based on the previous surveyed line and the vessel's turn capabilities



The EC-3D automatic data cleaning filter is used here to clean the DTM in real time (raw data shown on the left and cleaned data on the right)