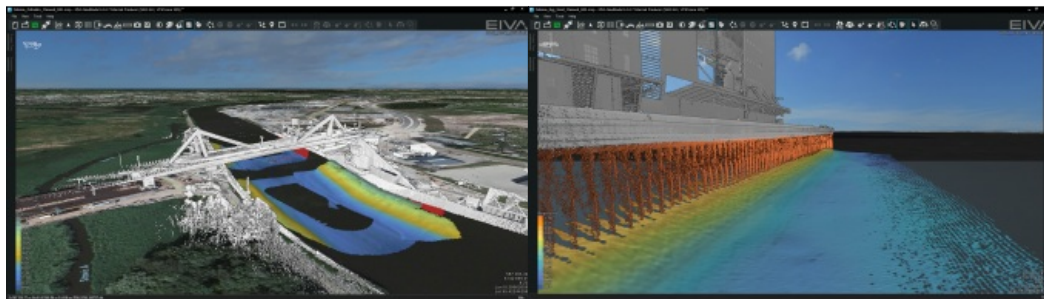


Improved Sonar and Lidar Features for NaviSuite Kuda



EIVA launched the NaviSuite Kuda software solution for shallow-water surveys in September 2015. This bundle included new features in the entire NaviSuite product line allowing for simultaneous acquisition of multiple sonar and Lidar datasets. Together with an Eiva customer specialising in shallow water surveys, SensorSurvey, a system with an R2Sonic SONIC 2024 (400 & 700kHz)

broadband multi-beam echosounder and a Renishaw Merlin vessel-based Lidar mapping system were mobilised for a seabed and quayside/elements port mapping survey.

The results of the test survey showed places where coding could be improved allowing for a more efficient solution for shallow water surveys in terms of new and improved features. These include:

- Separation of sonar and laser data in NaviModel, the NaviSuite solution for modelling and visualisation, so they appear as individual point clouds. This makes it very easy to clean especially overlapping areas between sonar and Lidar data.
- Point cloud editing directly in NaviModel.
- Point cloud grouping and naming in NaviModel, making it very easy to select points and separate them into their own groups, merge groups, etc. Thereby, the seabed can be separated from the quay side, wrecks etc.
- Generating of DTM from point cloud by simply right-clicking on a point cloud.
- Removal of point cloud noise via an additional cleaning function that is good at removing especially singular points close to the surface or hard reflections from a new metal quay wall.
- Improved point cloud performance, during the test a lag with the 200 million points collected in the test survey was observed.
- Lidar calibration through features that can find planes in the Lidar scans (eg a building wall).