![EIVA — MARINE SURVEY SOLUTIONS]

Online Software

Integrated navigation and data acquisition

- **Precise real-time navigation and positioning**
- **Real-time data acquisition and 3D visualization**
- **High accuracy timetagging through use of EIVA ATTU**
- **Flexible configuration**
- **Remote Helmsman's Display**
- **Online QC and reporting**
- **Intuitive and user friendly**
- **Extensive maintenance and support**

NaviPac NaviScan

Versatile and flexible software for marine survey applications

NaviPac and NaviScan jointly meet all demands to online software required for online marine applications, no matter the type of task or the level of complexity. Through its flexible configuration and intuitive user interface it is easy to setup geodetic parameters and select sensor interfaces from a pre-defined list of sensors or through a user-defined generic driver. Port settings are easily allocated and allows for thorough testing prior to mission. The software features layout and storage of operator preferred layout and settings.

Distributed solution through network support

The software supports network solutions allowing execution of NaviPac and NaviScan on each computer on the network thus separating navigation from NaviScan data acquisition. In addition it supports license-free distribution of Helmsman displays including real-time 3D visualization of the survey scenario. Through use of EIVA ATTUs (Accurate Time Tagging Units) the survey vessel sensor data is time stamped at extreme accuracy close to the source and sent to NaviPac/NaviScan. This eliminates the need for cabling directly from sensor to navigation/data acquisition computer.

Features

- **Extensive sensor interfaces**
- **User-defined sensors**
- **Supports network solutions**
- **3D online visualization**
- **Integration with digital video**
- **Online event capabilities**
- **Catenary calculation**
- **Seismic shot control by distance or time**
- **Barge/tug management**

Marine Survey Solutions

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Applications

- **General navigation**
- **Hydrographic and ocea-nographic surveys**
- **Geophysical 2D seismic surveys**
- **Scientific research**
- **Harbor surveys**
- **Marine construction work**
- **Offshore pipe-laying and inspection**
- **Cable installation and support**
- **Barge, tug and fleet management**
- **Offshore rig operations**
- **ROV, ROTV and AUV tracking and support**
- **Dredging**

NaviPac
Navigation & positioning

The NaviPac software provides navigation information and positioning calculations in support of any marine survey project, as well as offshore engineering and construction operations. NaviPac features comprise among others:

- Digital Navigation Charts
- Advanced survey planning
- Precise time tagging of sensor data better than 50 µsec through use of the EIVA ATTU time synchronized interface
- Input validation (Kalman filtering)
- Support of numerous geodetic parameters
- Pre-defined, selectable sensor interface drivers for the most commonly used sensors
- User defined generic I/O drivers

- Extensive quality control and warnings/alarms
- Tracking of unlimited number of vessels
- Specification/identification of any number of vessel/dynamic/antenna offsets
- Extensive utility features (e.g. interface tests, geodetic transformation, calibration, US Survey Feet etc.)

NaviScan
Sonar data acquisition

NaviScan acquires data from all major sonars on the market, including a/o multibeam echosounders, scanning and profiling sonars, conventional side scan sonars, pipe-trackers, etc. NaviScan features comprise among others:

- Pre-defined, selectable sensor interface drivers for the most commonly used sensors
- Interfacing of multiple secondary sensors (position, heading, heave/roll/pitch, Doppler log, etc.)
- Automatically controlled start-of-line, stop-of-line and file naming through interface with NaviPac
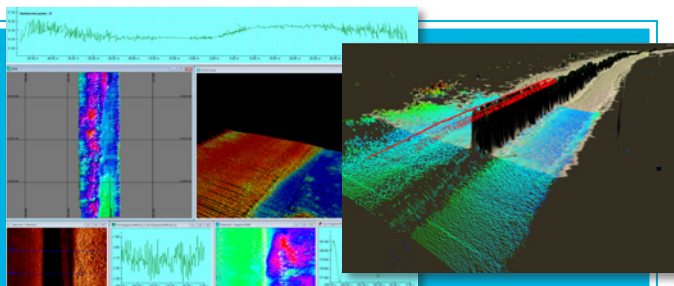
- Real-time processing of motion, refraction and tide for "on-the-fly" data display
- Full graphical, scalable sensor displays
- Real-time 3D graphical data presentation
- High-level applications for complex survey environment

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