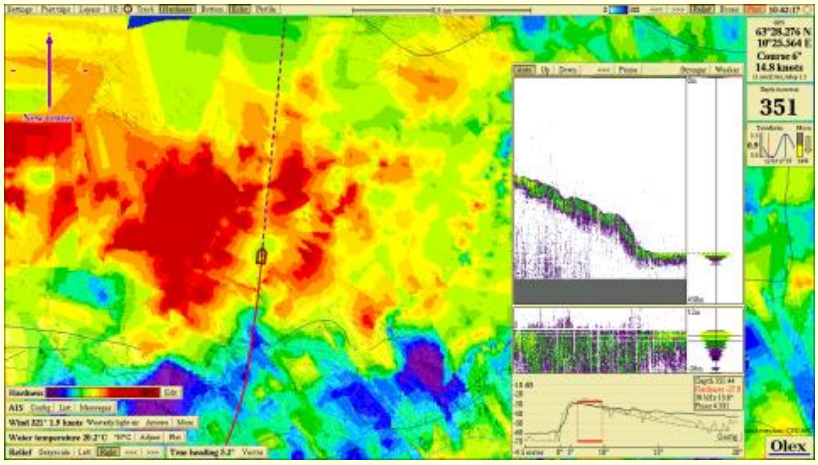
Olex

HT - seafloor discrimination

Simrad ES-series echo-sounders (ES60, ES70 & ES80) can measure the seafloor's ability to reflect sound as well as the depth. By analyzing the BI500 data from these sounders, Olex is able to calculate the hardness of the sea floor.



Raw data from the sounder are sent to Olex, so that the system can calculate the seabed topography and hardness. The calculation is done based on the seabed's ability to reflect sound signals, adjusted for factors that can affect the measurements. The system considers parameters like: pulse-length beam-width and transducer type in order to calculate a bottom echo based on hydro-acoustic theory. The calculated hardness values are integrated in the seafloor map together with the topographic depth values. Hardness is displayed in various colors. From deep purple for soft, to light yellow for hard seafloor. Depending on type of data input from the echo-sounder, various tools for signal processing, settings and history can be opened in separate windows on the screen.

Echogram

By clicking the Echo button in the main menu a traditional echo-sounder's window (echogram) is opened. Buttons Auto, Up and Down move the echogram in the water column. The echogram opens to the right, and a red line is displayed on the screen that shows the echogram's extent.

History

The arrows at the top of the echogram window can be used to scroll back and forth in historical echogram data, while the Pause button freezes the echogram. The end points are named with the letters A and B, the echogram thus displays the section from A to B on the map.

Hardness calculation

The bottom graph shows details of the hardness calculation. The light gray curve is the last sounding's spread. The dark gray curve is the last 100 soundings' average and the dashed line is a theoretical average of the spread of sound. The red frame is the hardness calculation area.

Offices: 4, Zosimadon str | Piraeus | 18531 | Greece
Branch : Flisvos Marina, Bld.03 | Paleo Faliro | 17561 | Greece
T: +30 210 4123000 | F: +30 210 4137270