PortListen

Underwater sound measurement system for harbours and waterways

Underwater noise management solution for the marine transport industry and environmental regulators

With vessel traffic on the rise at ports and terminals around the globe, the need to understand and mitigate the effects of underwater vessel noise on marine species is becoming ever more critical. Leveraging our experience as a premier provider of marine noise monitoring and assessment services, JASCO has developed PortListen, an integrated and modular solution for monitoring vessel sound emissions. With PortListen, we help stakeholders understand and manage the impact of underwater noise on marine life.

An Acoustic Weigh-in: Automatic Source Level Measurements

Analogous to a commercial vehicle weigh station, the PortListen underwater listening station measures the acoustic signature of a vessel as it passes through a defined measurement zone, typically about 2 km long by 300 m wide. The acoustic data are automatically processed and results are made available online in real-time, including radiated noise levels conforming to the ANSI 12.64 2009 (R2014) measurement standards, monopole source levels for direct use by acoustic propagation models for predicting exposures and possible effects of noise on marine fauna, frequency spectrum, and spectrograms for the entire vessel passage and for the measurement time window. Includes a full-featured Quality Control interface.

PortListen

- Automatic Vessel Source Level Measurements
- Marine Mammal Detection and Notification
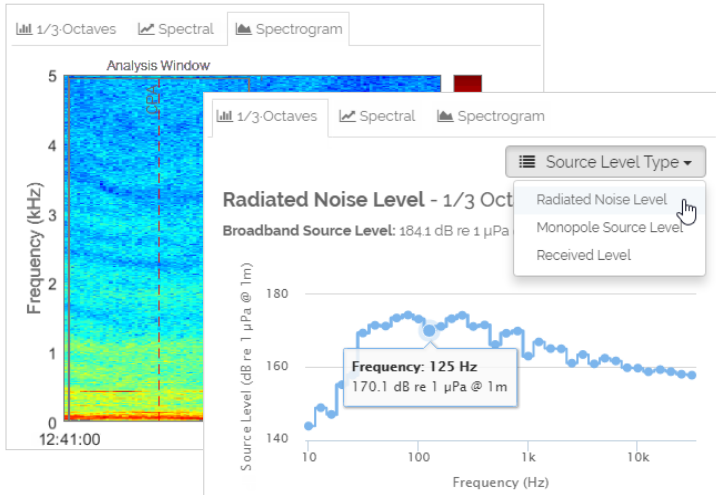- Ambient Sound Measurements
- Concise Actionable Reports

Concise Reports, Actionable Results

Each vessel measurement is summarized in a straightforward two-page report. Bespoke text can be included to meet the specific legal requirements of a port or waterway authority for distribution to vessel operators, stakeholders, or the public. Each acoustic report includes spectral source levels, frequency weighted source levels by species group, and noise performance rankings compared to vessels in the same class.

The concise vessel measurement reports can be used to promote awareness among vessel owners and operators. The noise performance ranking, in which the measured vessel is compared to others in its class assessed at the same location, provides a meaningful and readily usable metric on which to base management decisions.
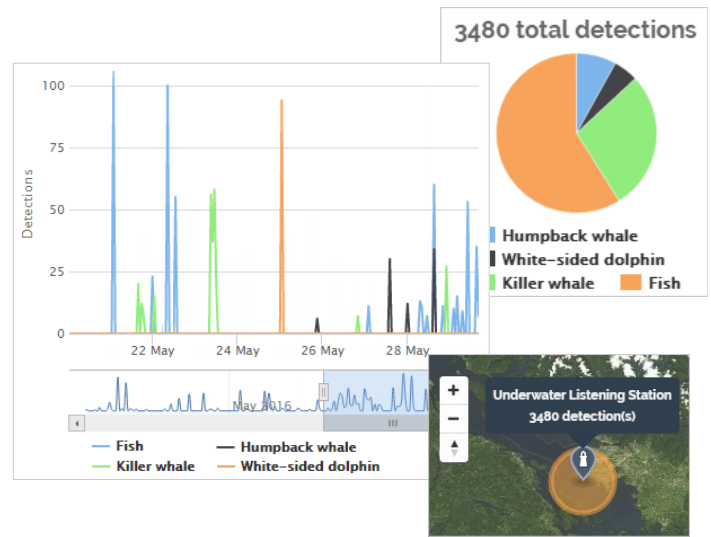
Marine Mammal Detection and Notification

In addition to monitoring vessels, PortListen can provide automatic detections and real-time alerts of marine mammal calls using JASCO's proven detection and species identification algorithms. Audio, spectrograms, and metadata of the detections from one or more listening stations are also made available online.

Easy Secure Web Access

PortListen provides fast and intuitive web access to current and archival measurements and results. The web interface and data displays are user friendly, requiring little to no training to view and interpret results. The database of measurements from all listening stations can be filtered and searched for fast access to relevant information. User accounts are customizable and secure.

PortListen
Making marine operations more sustainable

Sound Science and Technical Excellence

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