

Ship loader Hatch Detection & Volumetric Profiling System

Active Asset Tracking and Anti-Collision

About Us

BEC has a long history of developing and supporting innovative solutions, tailored for the mining and materials handling sectors.

These include:

- Berth Monitoring System (BMS)
- Laser Gap Detection System (LGAP).
- Laser Partially Dumped Ore Car (LPDOC).
- Anti-Collision System (ACS).
- Stockpile profiling system (SPS)

And now....

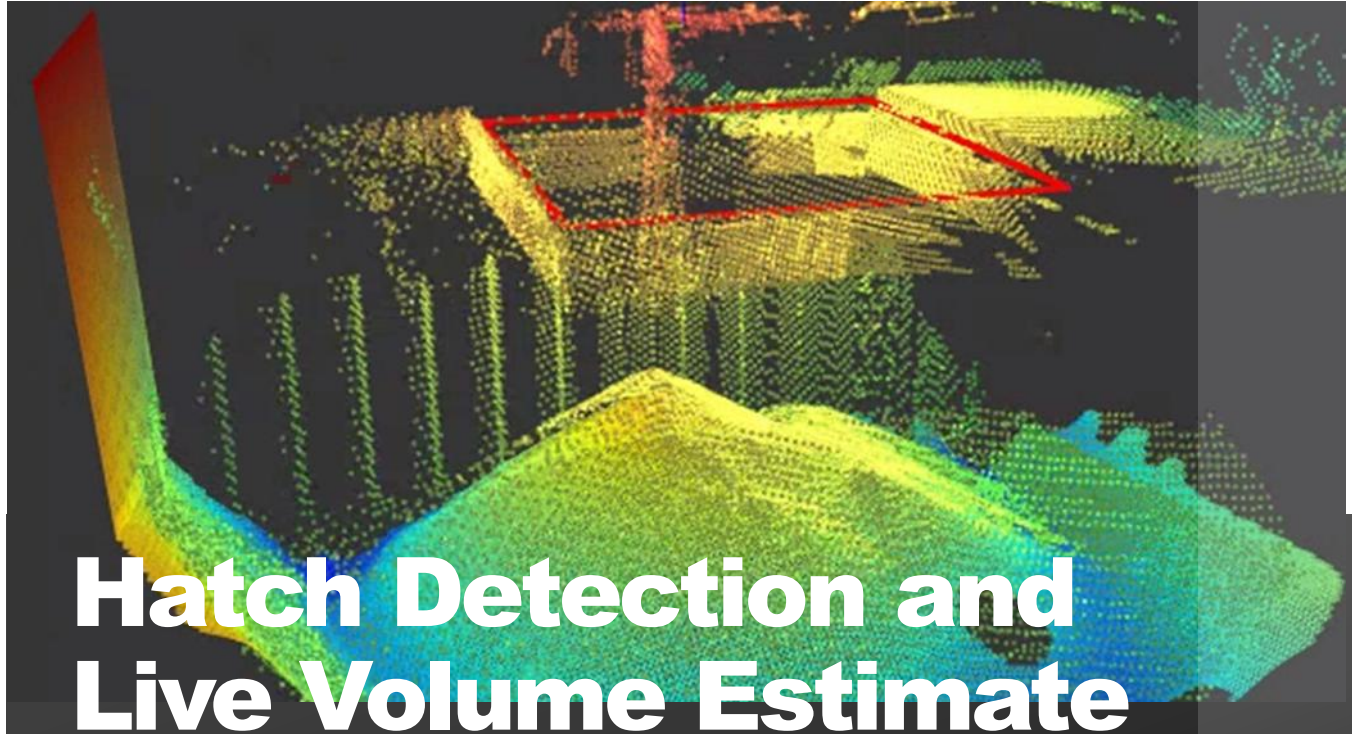
A photograph of a large industrial ship loader at a port. The loader is a massive red metal structure with a complex lattice of beams and supports, extending over a large red cargo ship. The ship has '6P' and '5P' visible on its side. The background shows a clear blue sky and other port infrastructure.

Ship loader Hatch Detection and Volumetric Profiling System (SVPS)

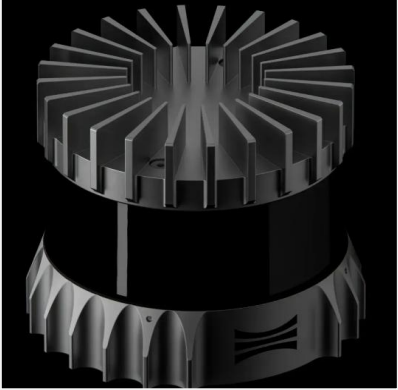
The system provides real time scanning of vessel hatch opening and live volumetric estimate of material load into the vault as well as active anti-collision.

Key Features

- Real-time hatch detection and ore flow tracking to ensure loading into an open hatch.
- Live volume estimate of material loaded in the ships hold.
- Integrated side and under boom Anti-collision to ensure safe hatch change and relocation operations.
- Full diagnostics and reporting.
- Optional historical data record for playback of events.



Key Features



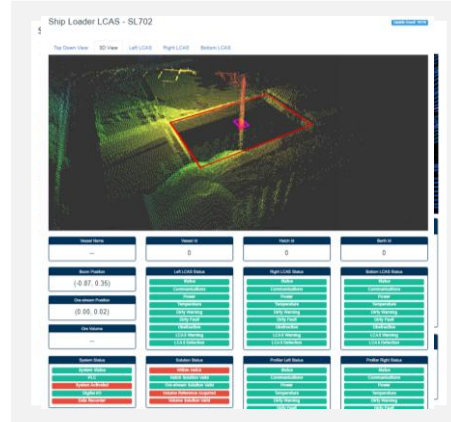
High Accuracy

Utilizes industry leading 3D lidar scanners producing high definition and accuracy point cloud.



Reliable

Proven under the harshest conditions to operate 24/7 with no intervention.



Full Visualisation

A real-time web-based user interface provides continual feedback, configuration and diagnostics.



Integration

Integrates seamlessly with standard PLC and SCADA systems via industry standard protocols.



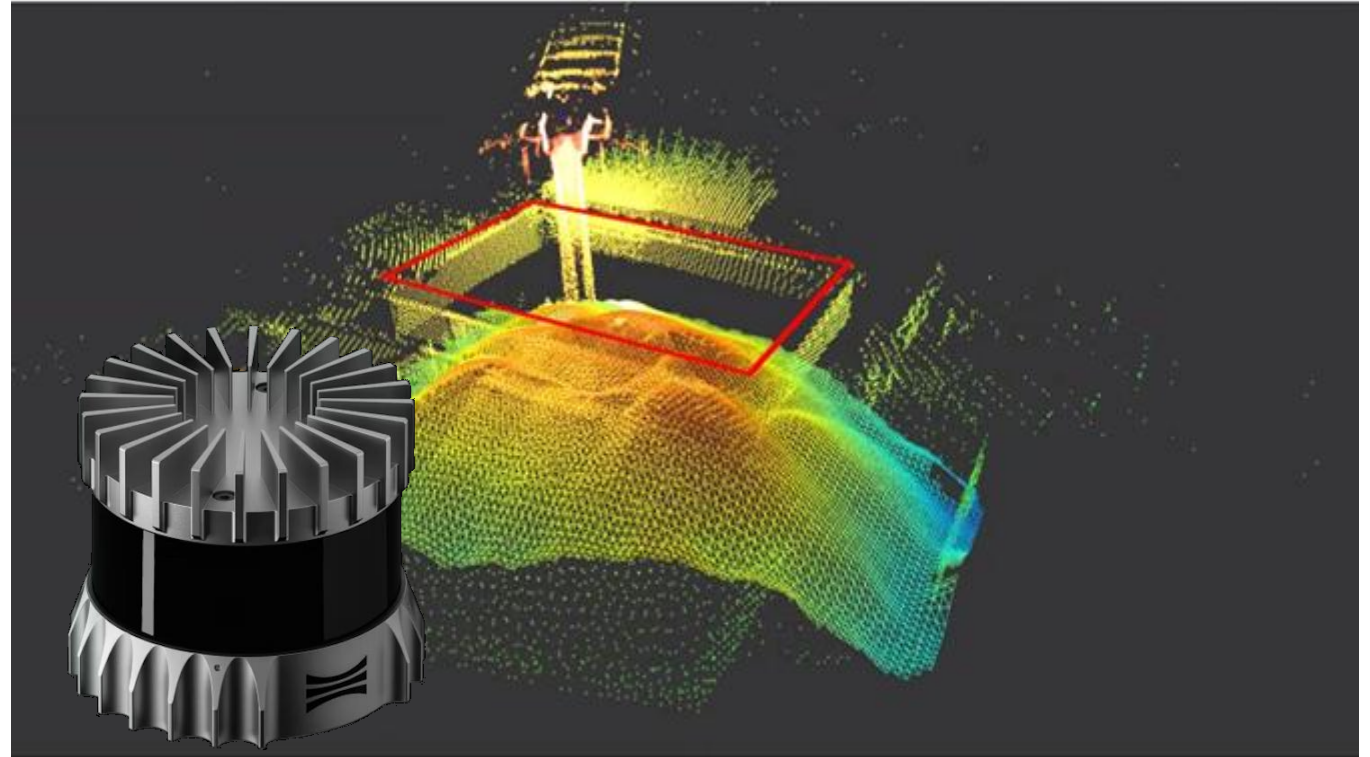
Support

Ongoing remote technical support available.

Technology

System incorporates the latest Ouster Lidar sensors:

- Ultra-Wide 128 Channel High Resolution scanning in 360 degrees providing complete coverage of area in front of the machine.
- Operates in harsh environments (IP68).
- Small, compact unit weighing less than 500 grams.
- Ethernet based communications transmitting over 500,000 points per second.

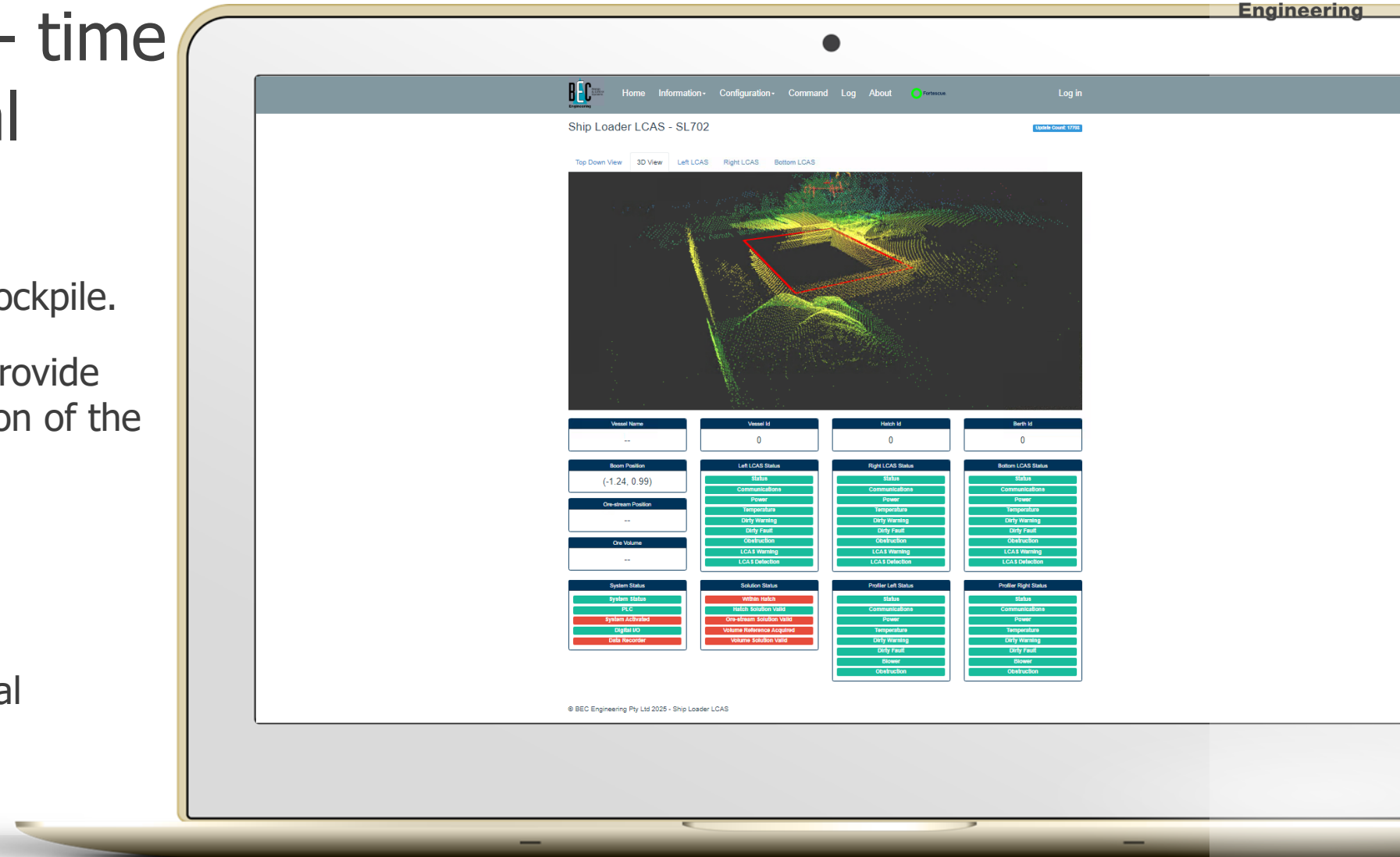


Ouster Lidars have been proven in mapping and scanning applications around the globe.

Web-Based Visualisation

SVPS provides real- time display of all critical data.

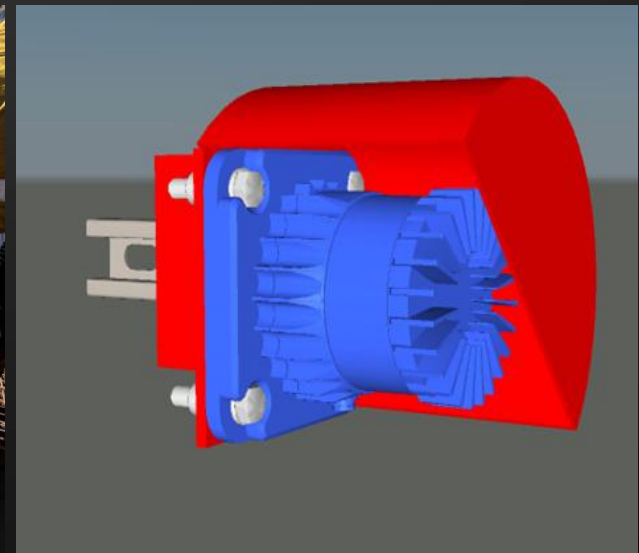
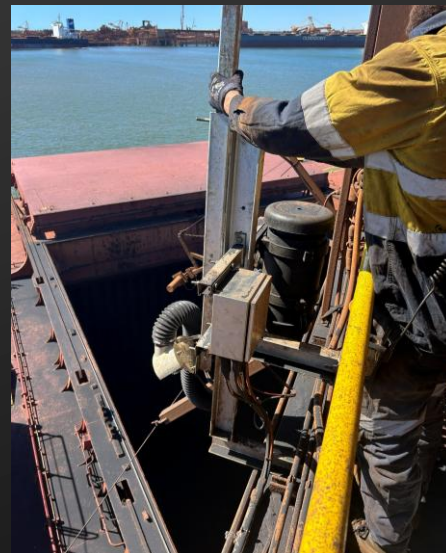
- Realtime visualization of the stockpile.
- Interfaces to machine PLC to provide critical alarms to stop the motion of the machine.
- Status and alerts.
- Configuration and diagnostics.
- Browser based UI. No additional software to install.



Turn-Key Design & Installation

BEC can provide a complete turnkey solution, including:

- Full system supply, including mechanical frame and supports.
- Electrical Design and Drafting to Company standards.
- Control Systems Programming.
- Mechanical and Electrical Installation.
- Commissioning and Acceptance.
- Remote Support.





BEC Engineering Pty Ltd

Thank You

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