

# Case Study

**Ataris leverages Prevu3D software to deliver game-changing value for the maritime industry: UKDocks and DE&S**



The team at [Ataris](#) is composed of experienced laser scanning operatives and former forces personnel. All team members undergo training in the latest laser scanning tools provided by Faro and Leica. Contrary to popular belief, laser scanning is not a simple "point and shoot" task. The data collected through Ataris' scanning surveys is crucial in multimillion-pound retrofits and digital twin models, highlighting the significance of accuracy and attention to detail. Ataris acknowledges the importance of this data and provides clients with a service that matches the project's significance.

Ataris utilizes state-of-the-art 3D scanning equipment and advanced processing tools to capture data on various structures and objects. The company has completed over 100 projects in over 30 countries, ranging from the world's largest container ships to offshore hyperbaric chambers. The team's extensive experience, coupled with marine engineering knowledge and onboard vessel experience, enables them to navigate diverse environments and accommodate a wide range of scanning requirements safely and effectively.

## Ataris & Prevu3D collaborate to deliver an ultra-precise digital replica of a vessel

Ataris collaborated with [UK Docks](#) and [Defence Equipment & Support \(DE&S\)](#) Naval Ships Support Hydrographic & Patrol Delivery Team to assist them in utilizing Remote Access technologies for their managed vessels.

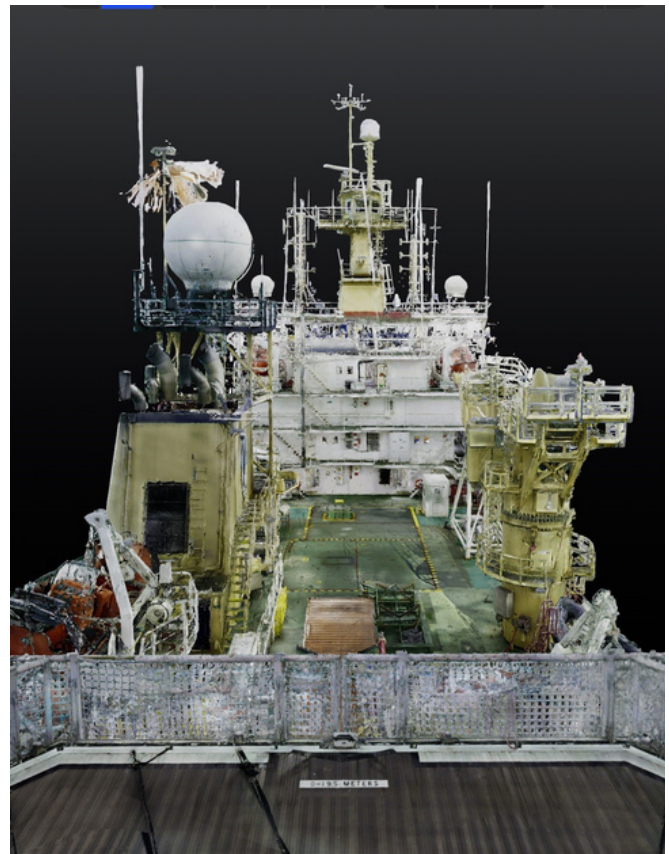
UK Docks work across the globe delivering vessel maintenance repair and refit, in-service support, vessel upgrades and modifications, vessel conversions, ship life extension programs, technical and logistical support and comprehensive data management services.

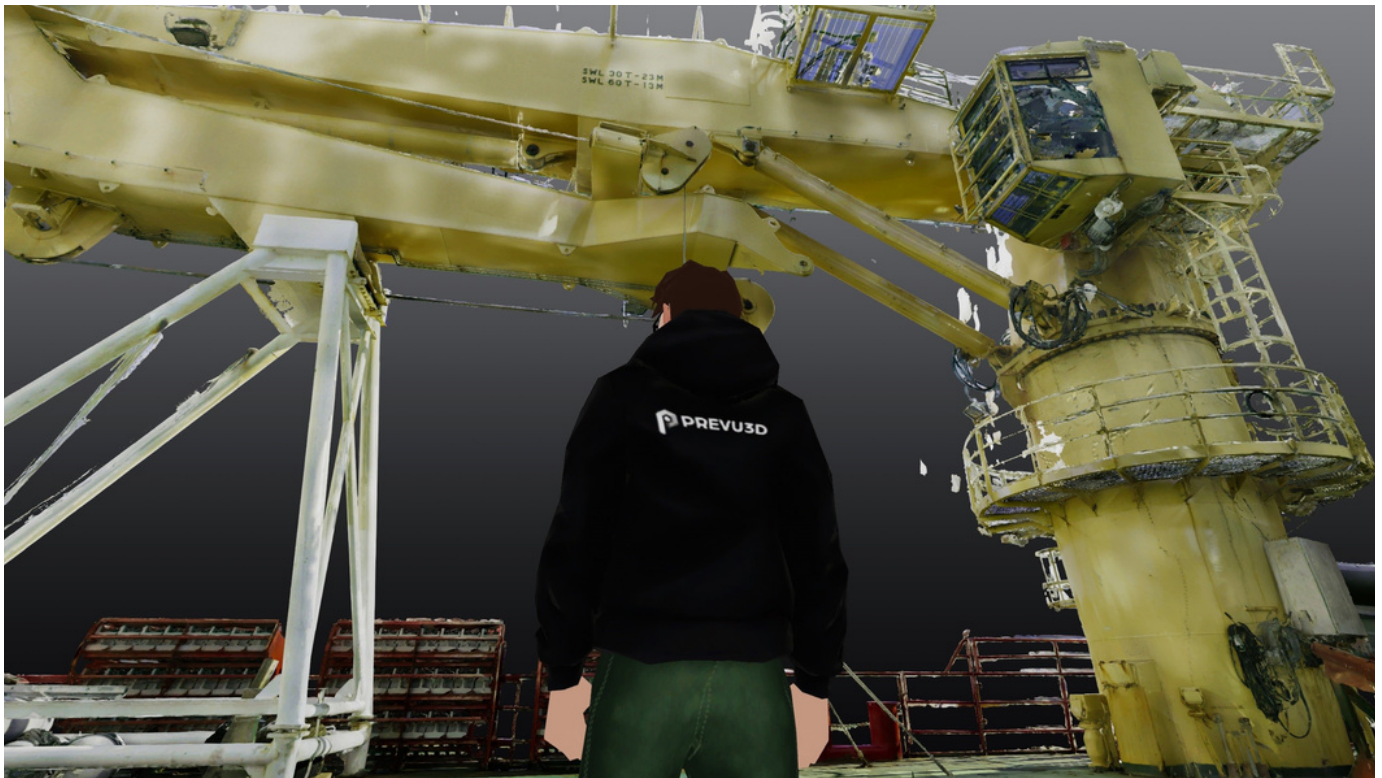
DE&S vessels are stationed in remote locations across the globe, posing challenges for operational and technical management due to their distance from the main office staff.

Ataris proposed a solution that involved conducting a comprehensive digital capture of the vessel, resulting in a highly precise 3D model to support future retrofit projects. Additionally, a photorealistic dataset was generated by the operations team to facilitate remote management of the vessel. Ataris chose to partner with Prevu3D to host the reality capture data.

### Recent scanning projects include

- Hyperbaric chambers
- Dive bells
- Offshore platforms
- Engineering facilities (for process expansion)
- A comprehensive scan of an entire Offshore Support Vessel (OSV) to support Digital Twin development





## Meet Prevu3D digital twin software

### Leverage the power of 3D data

Prevu3D provides an end-to-end platform that empowers industries to harness the full potential of 3D technology. The software automates the conversion of extensive point clouds into detailed, textured meshes, allowing for the visualization of high-quality scan data using a web browser and standard hardware. By consolidating and overseeing reality capture data, Prevu3D facilitates swift design, editing, and sharing layouts with project stakeholders, ultimately enhancing operational efficiency.

- Centralize reality capture data for easy access;
- Automatically convert point clouds to detailed meshes without manual manipulation;
- Virtually visit sites to gain rich visual context of machinery, tools, and sites;
- Iterate on engineering design concept in minutes and optimize layout reconfiguration;
- Centralize documentation and create a single source of truth to reduce travel costs, delays and errors;
- Facilitate input and recommendations from project stakeholders for efficient decision-making.

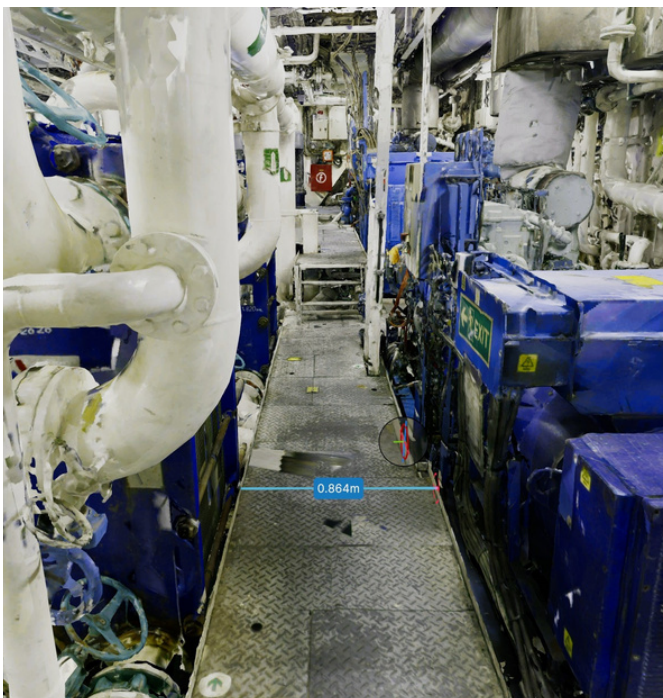
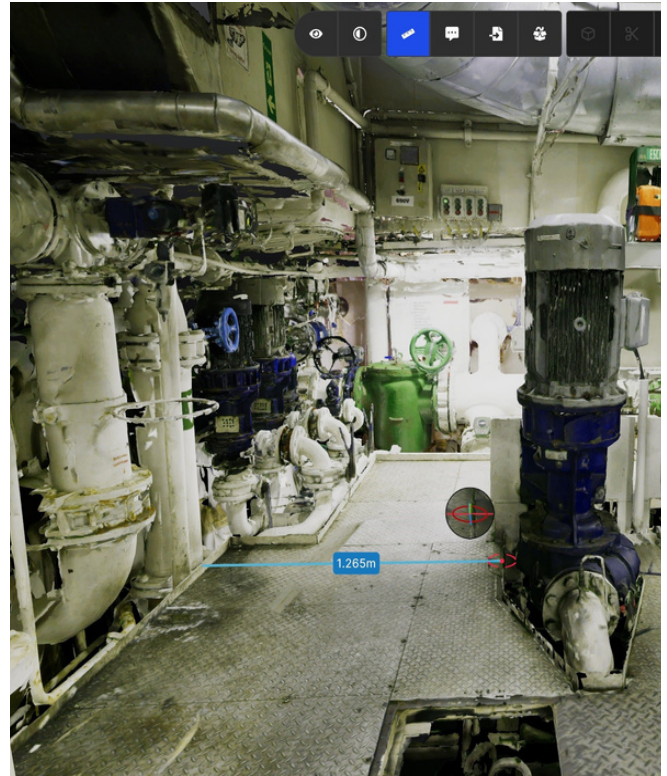


# Digital twin technology to onboard problem-solving and maintenance

Ataris paired its reality capture services with the Prevu3D software to surpass the needs of maritime customers, providing them with unparalleled value.

An exemplary case since the specific vessel remained in remote locations year-round, only returning for maintenance every 2.5 years while carrying out other works globally in between. The customer sought a system that would allow them to remotely access the ship, enabling onboard problem-solving and preparation for upcoming maintenance periods.

Ataris seized the opportunity to visit the vessel while it was stationed on the South Coast of England, completing the entire capture process in just three days.



Every cabin, compartment, and engine space was intricately recorded in full 3D using the Leica RTC360 laser scanner. Subsequently, the scans were processed utilizing Leica Cyclone software before being uploaded as .E57 files to the quick and efficient Prevu3D software.

Impressively, Prevu3D swiftly uploaded all the files, processing over 1.1 Terabytes of data. Due to the sensitivity of the information, the final models were uploaded to hard drives and securely delivered to the client. Commencing from the initial scan to the project's completion, the entire endeavor lasted a little over four weeks.

## The results

The results achieved by Ataris and Prevu3D are truly groundbreaking for the maritime team. The implementation of this system has already eliminated the need for the operational team to fly for over 24 hours to physically visit the vessel in order to address various issues. The system has proven to be incredibly effective, to the point where it is now being considered for a fleet-wide roll out.

“

For years, point clouds were unwieldy and couldn't be utilized by our clients. Prevu3D changes this and enables Ataris to provide revolutionary solutions to our maritime clients

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**Samuel Lee**  
**Managing Director, Ataris**

By enhancing the usability and accessibility of scanning data, Prevu3D maximizes the potential for value creation in 3D workflows, benefiting a broader range of end-users. Join industry-leading manufacturers and engineering firms benefiting from Prevu3D software solutions.

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**Talk to a Prevu3D experts >>>**

