

Accelerating Survey Processing Workflows Through the Absolute Ocean Platform: HYPACK Integration

HYPACK, a Xylem brand, has been a world leader in software development for the hydrographic and dredging industries since 1984. Their software is one of the most widely used hydrographic software packages in the world with more than 10,000 users in over 140 countries.

Challenge

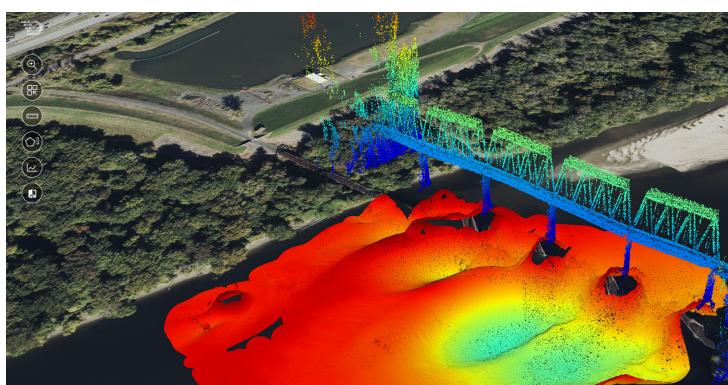
Surveying and data processing often involve a costly, time-intensive, and fragmented workflow. Survey teams work around the clock collecting and processing large volumes of ocean data. Traditionally, datasets are gathered during the day and pre-processed at night to evaluate coverage and adjust survey plans. Final processing is then completed either onboard the vessel by a dedicated processing team or by staff in a different location once the survey is complete.

When datasets are processed elsewhere, data is typically transferred via hard drives or FTP services. Both survey and processing teams require high-powered laptops to handle the data and software. Final delivery is usually completed through the same cumbersome methods—limiting collaboration and slowing access to results.

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HYPACK® data processing in the cloud, hosted by Absolute Ocean, marks an exciting industry first. This solution offers a comprehensive subsea geophysical data workflow in the cloud and delivers significant efficiency gains, all while ensuring secure, remote processing from any location.”

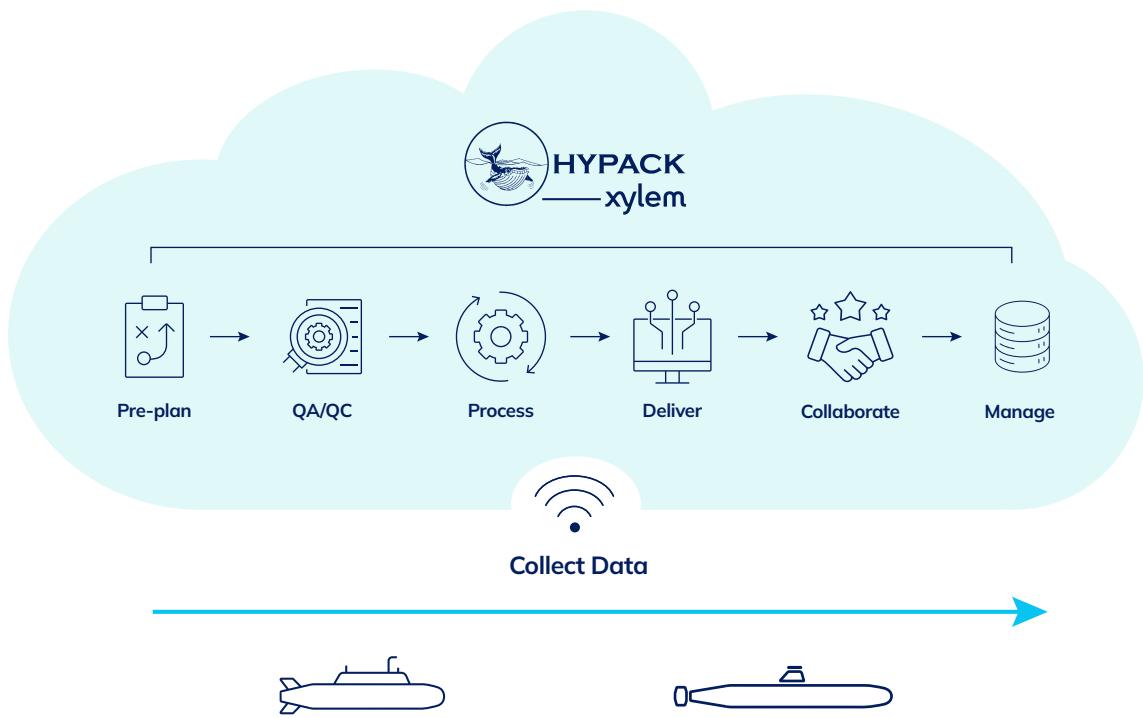
Straud Armstrong, Director of Business Development at HYPACK



Cloud Data Management

VM
Virtual
Machine

AO



Solution

To address these challenges the Absolute Ocean (AO) platform was utilized not only to store, visualize, and analyze survey data, but also to plan survey missions and process the data. This additional capability was made possible by integrating the HYPACK survey planning and processing software. HYPACK® OFFICE and HYSWEEP® OFFICE were installed directly in the AO cloud environment alongside collected and processed data, making data access easy for an optimal workflow.

This solution provided a seamless survey planning and data-processing pipeline that leverages cloud computing for enhanced efficiency. For maximum speed, survey teams utilized on-board Starlink internet for maritime users, enabling real-time data access and processing.

Result

Near real-time access to survey data anywhere

The result is a modern, efficient workflow with near real-time data access all in the Absolute Ocean platform. Processing staff can work remotely, distributing data sets and their workload efficiently, while interim results are instantly available for collaboration and planning.

Field teams are no longer reliant on localized high-powered computers due to added storage and processing capacity through the cloud, where valuable datasets are stored. Visualized data can be securely shared with all stakeholders anywhere in the world through the Absolute Ocean platform.