Terradepthâ€™s Absolute Ocean Increases Operational Efficiency for S. T. Hudson

S. T. Hudson Engineers, Inc. is a pioneer in state-of-the-art marine engineering and total harbour facilities and a specialist in marine technical services. It has provided professional consulting, surveying and engineering services for over 55 years and offers complete, cost-effective turnkey solutions across the US and internationally. Its experienced in-house team comprises engineers, environmental specialists, hydrographers, geophysicists, commercial hard-hat divers, estimators, construction managers, professional mariners, CADD/GIS experts and inspectors, all of whom assist clients on every aspect of a project: from the nearshore, to the docks, to the tanks, and everything in between. Hudson's unparalleled history and experience allows it to cultivate long-term relationships with its clients, providing a team with the skill set and knowledge to enhance its clients' business capabilities and project vision.

S. T. Hudson deploys sophisticated technologies from surface assets for bathymetric and geophysical surveys, comprising multibeam sonar, sidescan sonar, CHIRP and parametric sub-bottom profiling, transverse and stand-alone magnetometers, ultra-short baseline, single and multichannel ultra-high resolution seismic, autonomous surface vehicles and remotely operated vehicles. S. T. Hudson sought to deliver faster, more context-driven marine survey data, inspection reports and engineering plans, and found the right solution in Terradepth's Absolute Ocean, designed specifically for securely managing, collaborating on, delivering and visualizing marine data sets.

INDUSTRY CHALLENGE

Managing marine data is a significant challenge for surveyors, since it spans customers, geographies, sensor types and time, and requires vast amounts of storage. With a shift to cloud-based computing and remote data management, centralized physical data storage is no longer relevant. Traditionally, the final deliverable is mailed to a customer on a hard drive to compile a full project data volume. This is time-consuming and insecure and eats into tight deadlines. In the long term, the data can be lost or moved to a company network, where it can be difficult to find. Survey companies have also relied on providing weekly updates to their customers via PowerPoint slides and PDFs. From a customer perspective, these formats lack the context and immersive visualization capabilities that enable customers to view the data from different perspectives and in geographic relation to other data sets such as satellite imagery, nautical charts and terrestrial Lidar.

Investigate complex channel bathymetry with the profiling tool

TERRADEPTH'S SOLUTION

To solve the marine product management and delivery challenge, S. T. Hudson was among the first to contract with Terradepth for use of Absolute Ocean (AO), a secure, easy-to-use cloud-native geospatial ocean data management solution. In an early test, S. T. Hudson easily uploaded and visualized data sets sourced from a variety of sensor technologies across multiple common industry file formats to provide its customer with a status preview of the data. The data was searchable across geography, sensor type and other fields.

AO provides S. T. Hudson's customers with an impactful view into the data earlier, as they can access survey progress as data is uploaded. This allows customers to find concerns in near real time and notify S. T. Hudson of any scope changes. Customers also have greater geospatial context compared with static and contextually limited PDFs. The data is also available to additional client stakeholders, including project managers, engineers, financial approvers and executives, while previously limited to highly trained staff using specialized software. AO therefore serves as an ideal collaboration solution, scaling to global operations and geographically dispersed teams.

"The ability to quickly and easily analyse geospatial information helps our surveyors, data processors and project managers make more well-informed data-driven decisions, saving time and resources," said William Jenkins, Vice President, S. T.Hudson.

INCREASE IN OPERATIONAL EFFICIENCY AND A DELIGHTED CLIENT

S. T. Hudson reports that these capabilities reduce the operational effort, and that the customer is delighted with product delivery and visualization in AO, which saves stakeholders a considerable amount of time and effort. Most importantly, the customer can take a hands-

on approach to manipulating its data.

For S. T. Hudson, the time savings and quality control improvements have been significant, thanks to the ability to view the survey data as the project progresses and ensure that it meets the customer's needs. S. T. Hudson has increased operational efficiency through enhanced internal and client collaboration and expects further gains as it continues to use the product. Time savings are achieved by reducing the time needed for internal and external project briefings and project planning by leveraging archival data.

S. T. Hudson's customers save a tremendous amount of time and money as they can compare new survey data with older baselines, enabling project managers to identify and analyse changes over time without needing to manually evaluate conditions on-site.

"AO provides a single integrated platform that allows our internal team to access our data archives more efficiently from anywhere," said Jenkins. "For our customers, AO acts as a portal providing them with quick and easy access to their project along with the ability to do basic data analysis. This is a value-added service we can now provide to keep our clients more informed on the overall project progress and to meet their expectations on the final deliverables."

Explore multibeam and sidescan data together in Lake Travis

ABOUT TERRADEPTH

Terradepth is the world's first vertically integrated ocean data-as-a-service company focused on scaling ocean data collection and dissemination, enabling unprecedented exploration of the underwater environment. This is accomplished by an immersive, browser-based geospatial portal for ocean data visualization, management and analysis combined with environmentally friendly survey and monitoring operations that collect ocean data at the edge. These capabilities enable better and faster maritime decisions