

Revolutionizing Hydroelectric Plant Maintenance With Digital Inspection Technology

Energy

Roberta Simk

March 16, 2023

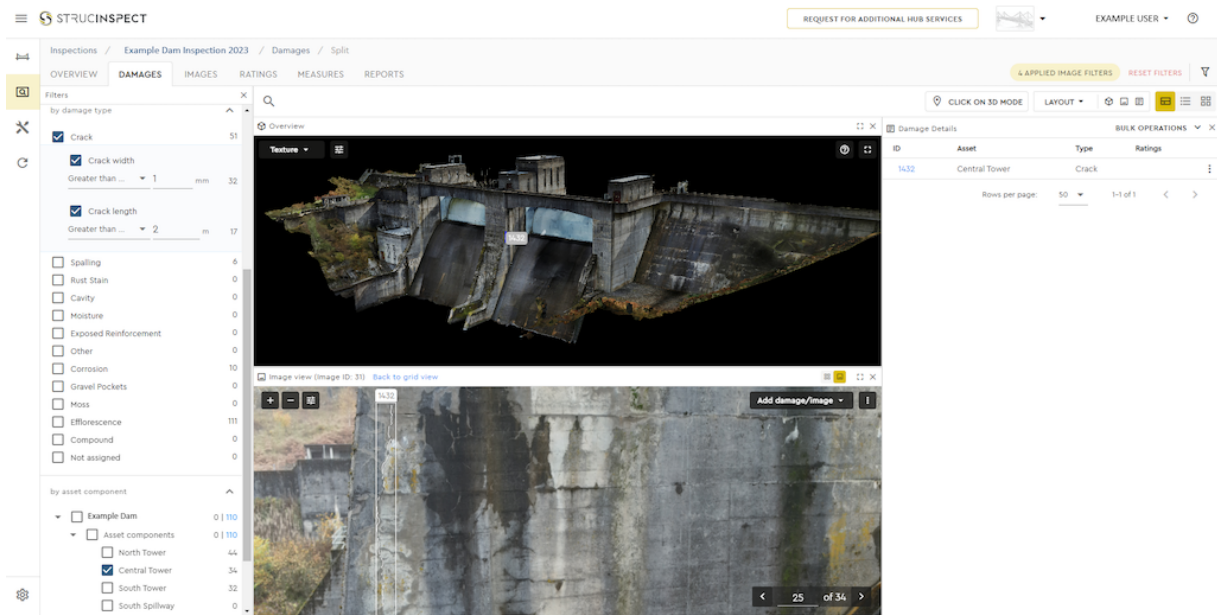


5/5 - (1 vote)

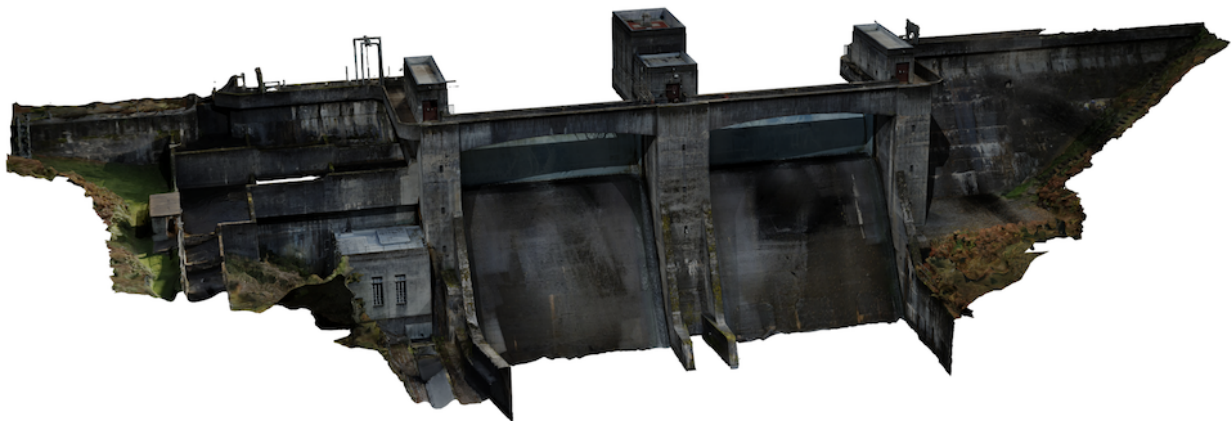
The Scottish power station Clunie serves as the starting point for STRUCINSPECT and Voith Hydro's pilot project involving digital inspection technology on a dam. Hydroelectric power plants, which make up 16 percent of global electricity production, have long been dependable sources of energy through storage and run-of-river power plants. In order to optimize their potential and prolong their service life, it's crucial to maintain the condition of their structures, pipelines, and turbines. Voith Hydro, one of the world's leading suppliers of hydropower equipment, is partnering with STRUCINSPECT to tackle this challenge. In 2022, the Scottish power plant Clunie underwent rigorous testing as part of a pilot project.

"Clunie is 72 years old and, in terms of capacity and size, the heart of SSE Renewables' chain of power plants between Dalwhinnie, Rannoch and Pitlochry," explains Andrea Venora, Head of Project Sense at Voith Hydro. This is a gravity dam where the forces of the horizontal water pressure, the brine pressure and the weight of the structure meet. *"So far, the inspections in Clunie are carried out twice a year in the form of*

walk-throughs of the entire structure,” states Albrecht Karlusch, Managing Director of STRUCINSPECT. A severe problem would arise if not all the damage were detected in time. *“This is where the advantages of our digital inspection technology come into their own,”* emphasizes Karlusch.



Founded in 2019 as a joint venture between PALFINGER AG, VCE, and the ANGST Group, STRUCINSPECT is a Viennese start-up that utilizes drone data to efficiently visualize and analyze structures with the help of artificial intelligence, Building Information Modeling (BIM), and Augmented Reality (AR). By offering configurable technology modules, STRUCINSPECT collaborates with its customers to create customized business solutions for capturing, recording, and efficiently processing inspection data for maintenance decisions.



For the global technology group Voith, which has been supplying hydroelectric power plants with components for more than 150 years, the partnership with STRUCINSPECT presents exciting new possibilities. According to Voith Hydro CTO Dr. Norbert Riedel, *“STRUCINSPECT’s digital inspection technology opens up the opportunity to offer new services globally, making digital assessment and tracking of civil conditions easier and safer.”*

This technology has the potential to be used on thousands of dams worldwide with an average age of 50 years, as well as other assets like penstocks, power houses, and tunnels. *“Through the use of our technology, maintenance and inspection become more precise and efficient, downtimes are reduced, and*

the performance of the plant is ensured,” says Karlusch, highlighting the advantages of digital inspection.

Share This Post:
[More News To Explore](#)
