James Fisher and Sons plc
Marine Services Worldwide

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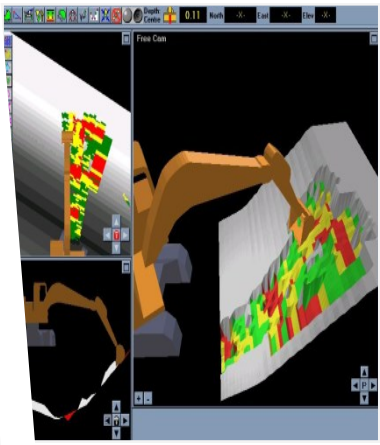
Power station construction

Case Study



An ambitious project by German-based energy company Engergiedienst, saw pcX-3D installed on three excavators of various sizes to carry out ground works above and below water during the construction of a new power station on the Swiss side of the River Rhine.

Challenging ground works undertaken during the early stages of the project required German contractor Schlieth to move some 1.2 million m³ of rock and earth, a large proportion of which was below the Rhine's surface. To complete the job, three excavators ranging from 35-125 tonnes were fitted with pcX-3D as well as a twin antenna RTK GPS positioning system—a powerful combination that enabled a digital terrain model (DTM) of the project to be uploaded onto pcX-3D's onboard computer.

With all the information displayed on screen in real-time 3D to a theoretical accuracy of 50mm (depending on machine size), the system provided the operator with all the information he needed at his fingertips.

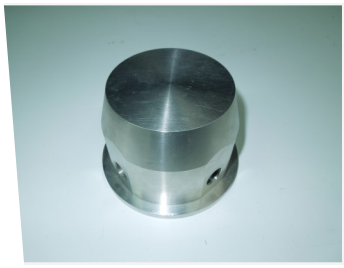
According to Schlieth, a major reason for choosing pcX-3D was its ability to seamlessly integrate RTK GPS positioning with the Prolec system, and to import the 3D DTM from survey software. Also, the fully rendered 3D real-time animation and the marine grade CANBUS sensor technology enabled strong reliability. With this combination, the plant operator could carry out complex subsea excavations to centimetre accuracy anywhere on site.

Who

Schlieth

Summary

Prolec's pcX-3D was installed on three excavators of various sizes to carry out ground works above and below water during the construction of a new power station on the Swiss side of the River Rhine.



Services provided

- Integration of pcX-3D with an RTK GPS system
- Import of a 3D DTM into the pcX-3D software
- Fully rendered, real-time 3D animation
- The angle sensor utilises advanced optical technology in an innovative application to provide highly accurate and reliable angle information

Benefits delivered

- Right first time task completion, no need to rework
- Greater reliability and accuracy—the AS8 is the most accurate angle sensor available in the Prolec sensor range and is ideal for safety critical machine control applications. Manufactured to marine grade, it is durable and reliable

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