

> Case Study

> BP Valhall LoFS – ‘Timebox’ Developments

The Problems

- > Development and application of emerging IT solution
- > No detailed specification
- > Timescale & budget constraints
- > Highly regulated operational environment

CSL Solutions

- > 4D IT solution – IT development, proven technology, engineering consultancy, field personnel and systems support
- > “Timebox” system for tight schedule and cost control
- > Continuous close co-operation with client
- > 4D Seismic Acquisition QA
- > Real-time data validation and conditioning
- > Data Management

Outcome

- > Delivery of IT technology and support for BP’s Valhall LoFS project, on time and within budget
- > BP’s first LoFS acquisition completed successfully November 2003

Olav Barkved, BP’s Project Leader for Valhall LoFS delivery said “We have worked closely with Concept Systems to develop new technology for seismic acquisition QA and solutions for real time data validation and data management for our LoFS project at Valhall. For this type of project, their rapid flexible development model has proved invaluable in helping us meet key objectives with reduced risk.”

More Information

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> Permanent 4D project realises value of rapid IT development

> Concept Systems provided a range of IT services for the pioneering BP Valhall LoFS project. The innovative “Timebox” Rapid Application Development technique enabled Concept to deliver a 4D IT solution and meet the project objectives, on time and to budget.



> In 2003, as part of its Life of Field Seismic (LoFS) project, BP initiated a permanently buried cable 4D seismic data acquisition system for its producing Valhall oil field, offshore Norway.

The LoFS project optimises reserves recovery by monitoring changes in reservoir behaviour from repeat time-lapse (4D) surveys. In a LoFS survey, a single vessel shoots seismic over a 35 km² network of multi-component sensor cable. The network has a data transfer link to a platform-mounted recording system with an onward fibre optic transmission to an onshore processing facility.

The major challenges for Concept were to provide the IT infrastructure, applications and personnel within a short timescale and strict budget limitations, and to commence the project without a detailed Functional Specification. “The joint BP/CSL team had a clear view of what ultimately needed to be achieved, but a traditional development approach simply was not suitable – we needed to think differently,” said Des Flynn, Concept’s Project Manager for the project.

The key success factor was the use of a “Timebox” Rapid Application Development model. Each significant step was modularised and assigned upper time and expense limits. High priority functions were implemented first, and non-vital functions, only if time allowed

The project team quickly integrated the core functional elements by adapting existing products such as the Gator command and control suite, and infield QC control systems, and by utilising components from a comprehensive toolbox of Concept 4D technologies.

Continuous dialogue with BP was essential throughout the prioritisation and implementation, as was co-operation with other suppliers to manage integration of equipment and services. Concept 4D specialists were deployed in the field to implement the 4D solution and to supervise operations. They also provided feedback to the shore-based multi-disciplinary development team, enabling technology enhancements for subsequent surveys.

The delivery of Concept technology, on time and on budget has helped BP to achieve its primary project objectives. The first LoFS acquisition was completed successfully in November 2003 and the program continues to deliver value to BP

Concept has been encouraged by the success of its rapid development model and expects to utilise this innovative approach on other breakthrough technology projects in the future.