



FACTS AT A GLANCE

Company: China National Offshore Oil Corporation

Website: www.cnooc.com.cn

Description: CNOOC is one of the largest state-owned oil companies and is headquartered in Beijing, China. It has maintained strong growth momentum, evolving from a pure upstream oil and gas exploration outfit to an integrated group of energy-related companies, with promising primary businesses and a complete industrial chain. CNOOC's six main business units are oil and gas exploration and development; professional technical services; refining, sales, and fertilizers; natural gas and power generation; financial services; and alternative energy resources.

Employees: 98,750

Industry: Oil & Gas

Country: China

PRODUCTS USED

- SmartPlant® Foundation

KEY BENEFITS

- Integrated information management system with full interoperability
- Easy and secure access to accurate and intelligent engineering data
- Better decision-making for significant cost and time savings
- Effective change management for improved safety, quality, and productivity

CNOOC IMPLEMENTS SMARTPLANT® FOUNDATION TO DRIVE BETTER DECISION-MAKING

Chinese offshore oil and gas producer leverages Intergraph®'s intelligent information management technology for its sophisticated EDIS project

IDENTIFYING GOALS

China National Offshore Oil Corporation (CNOOC) was established in 1982, and today it is the largest offshore oil and gas producer in China. It is one of the top 50 global oil companies, as well as a Fortune Global 500 company. CNOOC has evolved from an upstream company into an integrated energy company, possessing high-performance core business and other related businesses along the value chain.

CNOOC identified its need to establish an information management system that could support the entire project life cycle. In response, CNOOC set up the Engineering Digital Information System (EDIS) project to implement a sophisticated information management system across all the company's business units. This system would be deployed enterprise-wide to support the construction and management of new oil fields.

OVERCOMING CHALLENGES

- Establish intelligent information management system to support all business units
- Comply with local and international regulations
- Reduce inaccuracies in engineering data to improve safety and minimize risk of costly shutdowns

REALIZING RESULTS

The company determined that Intergraph® SmartPlant® Foundation is one of the most advanced and technically superior solutions available in the market. Using SmartPlant Foundation as the basis of EDIS, CNOOC is able to manage the engineering information of its offshore platforms and oil fields. It provides the company with accurate information downstream, promoting effective management optimization of the supply chain. This minimizes costly shutdown periods and improves the safety of CNOOC's facilities. Regulatory compliance with both local and international standards will also be easier to achieve and maintain.

"To continue advancing our business, we needed a comprehensive information system that can support our projects across the entire life cycle," said Jin Xiaojian, general manager of the Engineering & Construction department at CNOOC.

"SmartPlant Foundation is the leading information management solution in the market, giving us full confidence to develop our EDIS project using SmartPlant Foundation."

SmartPlant Foundation is the world's No. 1 standards-based Capital Project Life-cycle Management (cPLM) solution with proven performance in the process, power, and marine industries. It has been selected as the information management and integration system of choice by more than 500 customers, including EPC companies and owner operators worldwide in projects both large and small. SmartPlant Foundation has the broadest solution footprint in the industry with capabilities that span the entire project life cycle, ranging from simple document management to configuration management in highly regulated industries. The solution gives CNOOC the ability to manage massively interrelated, interdependent, and rapidly evolving data, while ensuring its quality and accuracy.

CNOOC developed its EDIS project using SmartPlant Foundation, establishing a sophisticated data center platform with its customized specifications and requirements. The intelligent Intergraph solution has the capability to manage tremendous amounts of data over the lifetime of a project, and is well-suited for challenging, large-scale projects. SmartPlant Foundation enables CNOOC to integrate all data, documents, and models that were generated in design, construction, and production stages to be linked to its other systems, such as SAP® and FileNet. With full interoperability, all key stakeholders can access accurate engineering data from a single source.

"SmartPlant Foundation enables us to move away from traditional paper-based data and document management," said Jin. "Based on SmartPlant Foundation, EDIS allows us to manage and access intelligent data easily, while also meeting our strict data specifications and reducing inaccuracies from human error."

A key element of the CNOOC EDIS project is that it supports the needs of the business across the entire project life cycle. With SmartPlant Foundation's data-centric capabilities and single-source-of-information concept, CNOOC is able to leverage intelligent technology for effective management and implementation of engineering changes according to business requirements. This delivers enhanced safety, improved quality of data, and increased productivity and efficiency.

"With an integrated information management system, we can ensure secure access to engineering information of our offshore assets whenever and wherever it is needed," said Jin. "This enables our business units to make critical decisions more quickly and efficiently based on accurate data for significant cost and time savings."

MOVING FORWARD

To achieve its long-term strategic goals, CNOOC plans to continually evolve the EDIS project to ensure that it continues to meet its business requirements and drive growth. The company will further enrich the EDIS database so that it can be used by an even broader group of users for enhanced data sharing across additional facilities.

"Intergraph has a highly experienced and knowledgeable SmartPlant Foundation team in China to support our EDIS project, making it a great success," said Jin. "We plan to expand the project in the near future to include the rest of our existing offshore platforms."

ABOUT INTERGRAPH

Intergraph is the leading global provider of engineering and geospatial software that enables customers to visualize complex data. Businesses and governments in more than 60 countries rely on Intergraph's industry-specific software to organize vast amounts of data to make processes and infrastructure better, safer, and smarter. The company's software and services empower customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure and millions of people around the world.

Intergraph operates through two divisions: Process, Power & Marine (PP&M) and Security, Government & Infrastructure (SG&I). Intergraph PP&M provides enterprise engineering software for the design, construction, operation, and data management of plants, ships, and

offshore facilities. Intergraph SG&I provides geospatially powered solutions, including ERDAS technologies, to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is a wholly owned subsidiary of Intergraph Corporation for the SG&I U.S. federal business.

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