

IVARA ENABLES HELMERICH & PAYNE TO STANDARDIZE MAINTENANCE PRACTICES ACROSS MORE THAN 100 SITES

Helmerich & Payne International Drilling Co. (H&P) operates over 100 drilling rigs around the world, including land rigs in the United States, South America and Africa, and offshore rigs in the Gulf of Mexico.

The Situation

In operation for over eighty years, Helmerich & Payne (H&P) has sustained an outstanding field maintenance record. Originally, H&P used a manual system based on field expertise and standards established by the American Petroleum Institute (API) and the International Association of Drilling Contractors (IADC). However, H&P recognized the need to transition to a more technologically advanced system offering benefits in efficiencies and reduced administration.

To enable the roll out of their maintenance strategy for moving to the next level of maintenance excellence, H&P needed an enterprise wide solution. As part of this initiative, H&P developed its Rig Asset Management System® (RAMS®) to supply ready access to information, schedules, work specifications and documentation. H&P also created an innovative Wide Area Network (WAN) using microwave, satellite and frame relay technology to facilitate continuous information exchange. This advanced communications grid allows H&P to connect with every rig in every operating region in the world, no matter how remote.

H&P conducted a comprehensive evaluation of enterprise asset management (EAM) systems to find a technologically advanced system that would enable them to effectively collect and distribute maintenance information over the new WAN.

The Challenge

H&P's requirements for an EAM system were demanding. H&P needed a scalable multi-site system that would provide an uncomplicated user interface at the rig level, yet offer sophisticated corporate analytical functionality. H&P assessed each EAM software system against the following criteria:

- multisite capability, to integrate and standardize the best maintenance practices from over 100 drilling sites around the world, and to facilitate company-wide cost summarization and reporting

- central administration, to reduce the resources needed to maintain the system
- multiple language support, for consistent implementation of standardized maintenance practices in a variety of cultures
- auditability, to ensure that all rigs are maintained to the same standards of excellence, no matter how remote their location or how frequently they relocate
- ease-of-learning and ease-of-use based on the skill level of the end user
- customizability, enabling H&P to tailor the system to suit its specific requirements and adding value to the total maintenance process

It was also essential that H&P find a software vendor that would partner with them to achieve success. H&P required a fast, effective deployment of the system on all of the company's rigs around the world. As the solution would be rolled out in a variety of locations over time, it was essential that the solution be durable as well as functionally robust.

The Solution

After an exhaustive review of over 200 EAM packages from vendors around the world, H&P determined that the only company that could meet all of its criteria, as well as offer the support crucial to H&P's start-up project, was Ivara.

Ivara SUPREAM allowed H&P to standardize maintenance procedures and deliver consistent, high-quality maintenance to all of the H&P rigs around the world and administer the entire network from a centralized location. Robust and extremely user-friendly for non-technology workers at the rig level, the software was also capable of performing the complex analyses demanded at the division, district and corporate levels.

Because Ivara's software could be distributed via H&P's existing WAN, the company was able to

leverage the value of their technology investment. H&P was now able to standardize best practices and continuously audit maintenance performance across the enterprise.

To test the solution, a six-rig pilot project was implemented, using offshore and international as well as domestic rigs to assess the software's performance under the pressures of real-world conditions. Due to the flexibility of the Ivara software, all the learning and experience gained during the pilot could be applied system-wide. In addition, the Ivara software was readily adapted to accommodate the unique H&P culture.

By the time the pilot was complete, Ivara and H&P had developed a plan to roll out the new maintenance program to every rig in the H&P network in compliance with the company's demanding deployment schedule.

The Result

The maintenance model developed during the Ivara pilot program was quickly applied by H&P to every rig in the network. The deployment to over 100 rigs, including hands-on training was achieved in just 18 months. The implementation approach resulted in a high comfort level with the new standardized practices, and a high level of satisfaction with the effectiveness and usability of the new technology at all levels.

In addition to fast, effective data collection and electronic dissemination of information within the existing rig network, Ivara's multi-site functionality helps H&P to bring new rigs into the system and integrate them quickly into the centralized maintenance procedures. The consistent practices make it easier than ever to move personnel around the rig network, because they are already familiar with the standardized asset management practices. This standardization also minimizes the difficulties that might otherwise result from language and cultural differences.

The new system has also helped to open new possibilities for enhancing system-wide operations. In this area, the Ivara solution has significantly accelerated H&P's ability to collect and analyze system usage data and correlate it with rig performance.

With key business processes supported by flexible software, maintenance and operations are now working together to optimize asset performance. The Ivara software has enabled H&P to continuously improve even as standards and expectations continue to rise. In fact, since the completion of the roll-out, H&P has applied over 400 field worker recommendations for improved operations and maintenance.

The software's multi-level functionality enabled H&P to configure an extremely user-friendly interface for rig level workers. This feature resulted in a high degree of acceptance of the new technology by on-site personnel. According to H&P's internal satisfaction reviews, enthusiasm for the new technology is very high among workers performing maintenance functions.

Ivara SUPREAM enabled H&P's corporate users to evaluate asset management procedures on a company-wide basis. Company-wide standardization of maintenance practices played an essential role in enabling H&P to meet ISO targets. H&P has now received ISO 9001 certification for the provision of oil and gas drilling contractor services.

Achieving quality requirements and meeting regulatory requirements has been easier with Ivara technology supporting the process.

Conclusion

Ivara's flexible, robust and comprehensive software and practices have supported H&P's maintenance strategy and enabled the roll out of that strategy to all of H&P's rigs.

The multi-site solution is centrally administered and audited from the corporate office, and embraced by rig employees because it is easy to use.

By combining the years of outstanding field maintenance from H&P with the flexibility and robustness of Ivara SUPREAM, H&P has been able to move to the next level of maintenance excellence.

Ultimately, at H&P, as with most asset-intensive companies, maintenance is directly tied to revenue. Using Ivara SUPREAM, H&P has avoided downtime – with an immediate impact on profitability.