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Optimizing Daily and Routine Maintenance in the Oil & Gas Industry through Project Portfolio Management

Executive Overview

Executives in the oil and gas industry often look at maintenance as a “necessary evil.” However, in these unprecedented times when every dollar counts more than ever, it is essential to carefully manage your company’s maintenance program. Those who do will reap significant financial gains by preventing expensive breakdowns. Yet, many oil and gas companies still rely on outdated and inefficient methods to maintain their most critical assets. Project portfolio management solutions, such as Oracle’s Primavera P6 Enterprise Project Portfolio Management, help oil and gas executives successfully manage their daily and routine maintenance projects, by enabling them to more effectively manage resources, capture best practices and complete projects on-time and within budget.

Introduction

Asset intensive industries, like the energy sector, have been substantially impacted by the global economic downturn. New regulations, the push to pursue alternative energy and greener fuels, the shortage of skilled workers and customer demand – all are forcing companies to cut costs and do more with less.

In today’s tough economy, keeping equipment running longer and more efficiently is more important than ever. Oil and gas companies that perform daily and routine maintenance on vital equipment save significant dollars by preventing expensive and untimely breakdowns. What’s more, well-tuned equipment runs more efficiently and reduces costs. Yet, many energy companies still revert to old, inefficient methods for maintenance on their most critical resources – facilities and equipment.

When focusing on budget performance issues, management seldom looks to maintenance as an area with the potential for significant gains. It’s often a “necessary evil”. However, for example, in the oil and gas industry, maintenance management ineffectiveness generates a significant financial loss for the company, according to a recent study by the Journal for Quality of

Maintenance in Engineering. The study goes on to say that “significant financial profit can be made by improving maintenance performance”.

Companies that understand this are working across different work types, like daily and turnaround (and capital), to effectively rationalize resources – labor and non-labor – and schedules to improve operations.

This paper asserts that a project portfolio management (PPM) system can enhance the investment of existing enterprise asset management (EAM) systems by helping to streamline maintenance operations, increase craft productivity, capture best practices and significantly reduce costs.

By using a combination of Oracle's Primavera Project Portfolio Management suite and integration with its existing maintenance solution, a top 10 Fortune oil and gas company witnessed the benefits of these solutions firsthand. From a single server platform to increased efficiencies in scheduling and resource leveling the combined improvements were expected to yield a five-year return on investment of \$20.4 million. However, only two years after rolling out the solution, the Company was already realizing actual savings of \$10 million per year and resource productivity increased by 20-30%.

The Challenge

With millions of dollars at stake and critical projects on the line, project driven organizations have no choice but to keep a tight rein on cost, schedules, and resources. An accurate and real-time picture of performance in all of these areas across all projects, throughout the maintenance process can today mean the difference between profit and loss.

One area of note is routine maintenance. High volume but less complex work is especially dependent on scheduling, and the allocation and tracking of resources. EAM tools do a great job of generating and managing work orders, but fall short in the ability to effectively manage resources and provide resource visibility across the enterprise.

Generating the necessary work orders is important and well suited to EAM tools. But it's equally critical – if not more – to balance resource supply and demand associated with those work activities. The ability to analyze project risks and confidently meet tight timeframes by effectively forecasting and managing resources across the enterprise or at a single site is what separates industry leaders.

Let's look at two specific areas that present considerable challenges but potentially have a great payback.

First, the labor component of maintenance is a substantial cost and all companies want to reduce costs. Tempting as it may be, laying off or accelerating the retirement of workers may seem like a way to reduce costs. And for the short term it will. But longer term issues, such as safety issues – due to delayed or skipped maintenance – and the loss of critical knowledge will emerge, necessitating a different approach: increasing the productivity of existing resources. That is, making sure resources are available, qualified and rapidly deployed to a project can reduce costs and inefficiencies. Oil and gas companies that can allocate the right people to the right jobs at the right time enable a more productive, efficient and safer use of their limited talent.

Second, visibility and access to project information for the entire enterprise from a single source could streamline operations and reduce costs. But for many enterprises, that information is often siloed. Whether you work in the boardroom or the plant floor, rich and readily available project details enable smarter decisions. For executives, issues of a strategic nature – like project cash flow, risks and costs – need to be instantly accessible in order to drive longer-term alignment with enterprise goals. For those who are tasked with managing specific short-cycle projects

decision-making speed is critical. They need the confidence that they'll have resources – the right ones – for the tasks associated with the work all in a timely manner.

In an all too familiar situation, a lack of technology – or the wrong technology – and processes can result in costs getting out of control, completion dates slipping, resources being overscheduled, and no clear enterprise view of projects and their progress.

There is a better way.

The Solution

A project portfolio management solution solves these scheduling and execution disparities, while improving efficiencies and reducing costs.

For example, a top 10 Fortune oil and gas company witnessed these benefits firsthand, using a combination of Oracle's Primavera Project Portfolio Management solution and integration with its existing maintenance solution. The company's vision for a centralized scheduling solution across its global enterprise provided significant justification to investigate a new approach to its maintenance management program. Its current solution did not have the necessary foundation to achieve its goals.

Return on Investment (ROI) was a critical factor in the Company's decision to move to Oracle's Primavera solution. Both operational and IT elements were considered in the process. From a single server platform to increased efficiencies in scheduling and resource leveling the combined improvements were expected to yield a five-year return on investment of \$20.4 million. However, only two years after the rollout, the Company was already realizing actual savings of \$10 million per year and resource productivity increased by 20-30%.

Just as important are the intangible benefits of the solution. According to a company spokesperson the standardized system allows information to be shared more efficiently and promotes collaboration. Decision-makers receive timely information through access to the central database from their desktops via the solution's web interface.

Furthermore, decision-makers at the company also now have a single, consistent report format to review project performance. Standard reports can be set up once, and then automatically generated for multiple projects. Oracle's Primavera PPM solutions also allowed the company to develop standard project management metrics for measuring project performance. In addition, best practices can be captured and retained for future use along with project templates.

Conclusion

The uncertain economy has taught all companies to find ways of maintaining and improving operations without increasing costs. When it comes to maintaining equipment in asset-intensive

industries, such as oil and gas – efficiency and proactive measures can mean the difference between profit and loss.

Truly innovative companies in this market are rationalizing resources and schedules across multiple work-types (e.g., daily, turnaround and capital) to improve overall operational uptime. Enhancing existing investments in enterprise asset management (EAM) systems through PPM is one of the smartest ways to achieve this.



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