

# BP LINGEN CASE STUDY

*"Impress delivers expertise with passion to always exceed customer expectations."*



—Martin Knief,  
Head of IT Deutsche BP AG,  
Erdöl-Raffinerie Emsland

Built in 1953, BP Lingen is one of twenty-three BP refineries worldwide. One of the ten largest companies worldwide, BP employs close to 102,000 people on six continents in over 100 countries, operating across crude oil, natural gas, petrochemicals and renewable energy business segments. The BP Lingen refinery processes over 4 million tons of crude oil per year, yielding over \$2 Billion in annual revenue.

## CHALLENGE

In an effort to meet government regulations at the BP Lingen facility, a complete shutdown was required in 2006. This large project called "TAR 2006" took more than three years to plan and represented the first complete shutdown for BP Lingen during its fifty year history. The \$72 Million project involved the servicing of more than 1,600 pieces of major equipment requiring over 800,000 man hours, 600,000 of which were contractor hours.

Prior to the turnaround, BP Lingen used the SAP Plant Maintenance (PM) module, as well as Primavera P3e for project planning and scheduling. The distinct use of these two systems proved adequate at best for smaller maintenance projects but using two disconnected systems for a project as large as "TAR 2006" posed a great amount of risk and inefficiency for BP. Task lists and work orders were built in SAP and transferred to spreadsheets and reports, from which external contractors created their own project schedules. These isolated project plans led to a project controlling process based on outdated information and opinions rather than facts, impeding BP's ability to respond to project delays and cost overruns. BP also incurred less favorable contractor payment terms because project activities were often not confirmed until after a project was completed, leading to excessive delays in contractor payment. In addition, during any given project it was nearly impossible to update the schedule to accommodate unplanned work, and there was no historic data from previous projects from which to make informed decisions, accelerate planning, and reduce risk for future turnarounds.

## SOLUTION

BP Lingen sought a solution that would automate cross-system business processes between SAP and Primavera, leading to more efficient project planning and management. For large projects such as "TAR 2006" which encompassed the servicing of more than 1600 pieces of equipment and 190,000 activities within SAP, as well as complex schedules, BP required an integration solution that would minimize risk and reduce the costs of operation.

### Industry:

Oil and Gas

### Goal:

Minimize risks and reduce the total costs of major turnaround projects through the automation of business processes across SAP and Primavera.

### Solution:

Impress for EPM

### Results:

- Completed largest turnaround in fifty-year history on time and budget
- Reduced contractor costs through automated processing of project status and timely processing of payments
- Reduced anticipated planning time and cost by 66% for future turnarounds
- Increased visibility into stored, reusable project data to reduce risks and costs for future projects



BP's ideal scenario would allow project managers to control the execution of the turnaround from Primavera, while allowing management and finance to oversee the budgeting, costs, and billing aspects from SAP. Given the vast size and complexity of TAR 2006, BP also needed an SAP-certified and proven solution that could process thousands of activities on a daily basis.

The Impress integration solution at BP enables the transfer of work orders created in SAP to the Primavera scheduling system. After activities have been successfully scheduled using Primavera they can now be monitored and tracked in Primavera, with progress information for approximately 6000 tasks per day automatically passed back to SAP for tracking, billing, and management reporting.

The transfer of project data between SAP and Primavera provides faster detection of discrepancies and allows project controllers, project managers and planners alike, visibility into changes occurring during the course of a project from either system.

### RESULTS

The operational benefits of integrating SAP and Primavera Systems using Impress for EPM are significant for BP Lingen.

As a result of the integration, accurate and real-time project data is available for all involved user groups across varied systems. This keeps all turnaround stakeholders on the same page at all times, and enables project teams to collaborate and act on project changes and issues as they occur. As well, optimized project schedules improve resource utilization while placing BP in a better position to reduce the duration of major turnarounds which cost millions of dollars per day.

By automating the activity confirmation process, BP is now able to reduce contractor expenses by processing contractor payments in a more timely manner. Upon completion of tasks, Impress automatically creates confirmations in SAP, triggering contractor payment.

Finally, the Template process used in TAR 2006 will allow for the reuse of TAR data for future large scale projects and access to this historical data will also enable BP staff to manage smaller projects in the future without support of external contractors.

BP expects that by automating the matching of resources and project schedules, the integrated system will reduce required planning time and costs by about two-thirds on future projects.

As a result of the integration of SAP and Primavera, reliable and timely data made it possible for this \$72 million turnaround to be completed on time and on budget.

### ABOUT IMPRESS FOR EPM

Impress for EPM is a packaged integration application optimized for bridging SAP PM with Primavera. It synchronizes project-related data between the systems, "automating-away" the costly and time-consuming data entry required to keep both systems consistent. It also delivers key SAP information, such as resource and material availability, to project managers working in Primavera to improve their effectiveness during project planning, scheduling, and execution activities.

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