

# HALLIBURTON KBR CASE STUDY

*“Our extensive experience shows that the integration of SAP and project management tools such as Primavera and MS Project pays significant dividends. Impress for EPM supports our diverse and complex integration needs and helps us achieve more efficient resource utilization and better project performance.”*

HALLIBURTON

—Stuart Graham, Manager of SAP Project System’s Design and Deployment (Halliburton/KBR)

Founded in 1919, Halliburton is one of the world’s largest providers of products and services to the oil and gas industries. The company adds value through the entire lifecycle of oil and gas reservoirs and provides and integrates products and services, starting with exploration and development, moving through production, operations, maintenance, conversion and refining, to infrastructure and abandonment. Halliburton employs more than 100,000 people in over 120 countries working in five major operating groups.

The Engineering and Construction Group, known as Kellogg Brown & Root (KBR), serves the energy industry by designing and building liquefied natural gas plants, refining and processing plants, production facilities and pipelines, both onshore and offshore. KBR’s non-energy business meets the engineering and construction needs of governments and civil infrastructure customers. KBR also provides client plant operations and maintenance support for a wide variety of facilities.

## CHALLENGE

Project execution is critical to Halliburton/KBR’s success, and project management is a core competency of the company. At any given time, the company runs hundreds of projects, involving thousands of resources.

Project data is managed in multiple systems. Project operations and cost are managed in SAP, while scheduling, resource optimization, and earned value management are performed in Primavera or Microsoft Project.

The structures of projects and the relationships between data stored in each system are complex and diverse, reflecting the variety and multitude of projects the company is involved in.

Some of the typical project structures that can be found at Halliburton include:

- “Simple projects”: one-to-one relationships between projects defined in SAP and Primavera/MS Project
- Large, multi-site projects: multiple projects in Primavera/MS Project correspond to a single project in SAP
- Construction and fabrication projects: one project in Primavera/MS Project corresponds to multiple projects in SAP
- Program Management projects where only a portion of the project is controlled within SAP but the entire program is managed in Primavera/MS Project

## Industry:

Engineering and Construction

## Goal:

Improve resource and material utilization and overall project performance.

## Challenge:

Synchronize project information maintained in SAP, MS Project, and Primavera.

## Solution:

Impress for EPM

## Results:

- More effective resource utilization
- Reduction in material and handling costs
- Improved internal communication
- Better on-time project performance
- More effective use of existing applications (SAP, Primavera, Microsoft Project)



On the SAP side, some projects are managed in the Plant Maintenance (PM) module, while others require both the Plant Maintenance and the Project Systems (PS) modules.

Needless to say, maintaining data consistency and ensuring visibility to project data in such a complex environment was time consuming, labor intensive, and error-prone.

## SOLUTION

Impress for EPM is a packaged, integration application that links SAP with best of breed project scheduling and management products such as Primavera and Microsoft Project.

Impress for EPM integrates the business processes of project planning and ERP that would otherwise run independently. Maintaining consistent project data across all systems at all times, Impress for EPM eliminates the need for duplicate data entry and the risk of mismatched schedules and resources.

## RESULTS

Using the integrated project environment enabled by Impress for EPM, Halliburton is able to reap major benefits from the improvement of materials management and resource utilization.

Having access to more accurate and up-to-date project plans and work order statuses, Halliburton can now manage the hiring and deployment of resources in a more timely fashion. Resource utilization is further improved by tighter alignment of resources deployment with the availability of materials and engineering documents.

Having more accurate and timely information to predict when material is needed in the field, Halliburton is able to:

- Precisely time the purchasing of material and its delivery to the site
- Reduce the risk of material surplus
- Reduce the amount of on-site inventory
- Improve unit pricing by consolidating purchases to obtain higher volume discounts
- Conserve cash flow by delaying commitments
- Reduce unnecessary expediting and freight costs

The tight integration of SAP with Primavera and MS Project has also helped improve internal communication on issues related to project work and resource utilization. All groups involved in the project now have access to the same information, while each group is able to keep working in the system it is most familiar with and that best serves its needs.

Furthermore, the integrated project environment enables Halliburton to deliver more projects on-time, resulting in reduced costs and avoidance of penalties, improved customer satisfaction, and if in the contract, the award of performance fees.

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