

VALERO ENERGY CASE STUDY

"This was the first time in my career that I've seen turnaround planning and finance agreeing on what the numbers were throughout the shutdown project. Everybody was on the same page and trusted the operational and financial outputs."

—Kirk Blanchard, Turnaround Manager



As the largest oil refiner in North America, Valero Energy Corporation was planning a \$39 million shutdown at its St. Charles refinery, and needed to maintain accurate, real-time project management data across SAP, Primavera, and TrackSoftware.

Impress for EPM provided Valero with the solution.

BACKGROUND

Based in San Antonio, TX, Valero Energy Corporation is the largest U.S. refining company, with a throughput capacity of approximately 3.3 million barrels per day, 22,000 employees, and annual revenue of \$70 billion.

The St. Charles refinery in Louisiana is Valero's largest refining operation, with a throughput capacity of over 245,000 barrels per day.

A major shutdown of the St. Charles refinery was planned for February 2005. The plan called for a 29-day shutdown, with 1,800 contractors working around the clock for a total of 600,000 person hours, 40% of which were planned overtime hours. The plan required 175 SAP Materials Management purchase orders and 1,341 SAP Plant Maintenance work orders.

CHALLENGES

As it was preparing for this major shutdown, Valero faced a number of challenges including the synchronization of data across multiple information systems used to manage the project. The use of such systems often produced dissimilar data views, thus leading to a lack of confidence in the accuracy and integrity of information.

As the master system of record and management at Valero, SAP is used for the majority of business processes, including work order management and budgeting, cost accounting, and Earned Value reporting. Project planning and scheduling are done using Primavera software, while time tracking is done in TrackSoftware.

"I needed to make sure that when management looked at turnaround reports, the data really matched everything in the field, especially with today's increased auditing requirements. Since SAP was our system of record, all the reporting in SAP must match what someone would see in Primavera," explained Kirk Blanchard, Turnaround Manager at the St. Charles Refinery.

Manual updates of data from one system to the other were not only costly and time consuming, but also quickly outdated, frequently compromising the ability of decision makers to react to new information in a timely manner.

Industry:

Oil and Gas

Goal:

Safe and timely execution of a \$39 million turnaround at the company's largest refinery.

Challenge:

Synchronize project data across SAP, Primavera, and TrackSoftware to provide management with timely and credible information throughout the project.

Solution:

Impress for EPM

Results:

- Allowed management to make timely decisions based on accurate and credible information throughout the project
- Enabled better coordination of resources and material
- Eliminated costly and time-consuming manual data entry
- Provided reusable information infrastructure to streamline future turnaround projects



SOLUTION

Valero sought a solution that would facilitate the consolidation of data in SAP, enable the transfer of data both to and from Primavera and TrackSoftware, and be upwardly compatible with all future SAP and Primavera versions—all without having to alter the applications themselves. Impress for EPM, a packaged integration application certified and supported by SAP, proved to be the ideal solution to address Valero's requirements.

In preparation for the February 2005 turnaround, an initial set of work orders was defined in SAP. Impress for EPM transferred the information to Primavera, including all constraints and dependencies among tasks. Furthermore, all activities and material components associated with the plant maintenance work orders in SAP were made accessible from the Primavera project plan.

In parallel, work order information was extracted from SAP and used to establish a project in TrackSoftware. As the turnaround moved into the execution phase, actual data from swipe card readers was collected in TrackSoftware and fed immediately into the project plans in both SAP and Primavera.

Synchronizations between the systems were run twice a day, providing a real-time view of work progress, change management, and cost control. According to Blanchard, system performance was great and synchronization run-times were negligible.

Incidental work orders to handle unexpected situations were immediately entered into SAP and scheduled in Primavera, allowing near zero latency in reaction time. Most importantly, senior management was able to make decisions based on accurate, timely, and actionable cost information.

Explains Blanchard: "the integration worked so well because everything from material cost to work orders was done first in SAP so we could all see what the plan was, what was currently going on with the work, and where things were going."

BENEFITS

The Impress for EPM solution offered Blanchard and his management timely information that provided the level of credibility they were seeking. The integration made it possible to take daily contractor time and cost information from TrackSoftware and transfer the data so that SAP could calculate the costs. Furthermore it was now possible to reconcile planned costs with actual costs and address any adjustments to scheduling or material requirements on a daily basis.

The integration also enabled Blanchard to reduce his staff from thirty to eleven employees, and the ease of data handling saved hundred of hours of manual work.

Blanchard estimates that it costs Valero between \$1.2-3 million for every day a turnaround runs over schedule. The improved planning and scheduling allowed the refinery to complete more work than originally planned for the turnaround— all within the allocated time and budget.

"The bottom line," says Blanchard, "is that the solution worked for us; and while it was important for us to use a packaged product, Impress was there to make sure the application met our specific requirements."

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