

Major Oil Refiner Migrates to New DCS Platform

A major oil refiner partnered with MAVERICK to support an eight-year, multi-phase program to migrate multiple refinery business unit process areas.

Objective

The refiner partnered with MAVERICK on a multi-million dollar long-term program to systematically migrate its process areas from the existing Honeywell TDC 3000 platform to a Honeywell Experion distributed control system (DCS).

Results

While the program is ongoing, the MAVERICK team has completed the first phase of the migration project, commissioned during a previously scheduled two-week turnaround, minimizing disruption to production. The customer has deemed the project a success in all aspects including safety, budget and quality. The refinery readily obtained corporate approval for the next phase, and the project is currently underway.

Solution

The program encapsulates migrating the refiner's entire Honeywell TDC 3000 system for a total of nearly 7,000 hard I/O points and connections to over 20 different third-party interfaces, including various SIS, Analyzer and OPC interfaces.

The MAVERICK team began the program by conducting a Level 2 front-end loading (FEL2) study in order to develop a detailed overall project execution plan, +/-30% estimate and a resource-loaded critical path integrated schedule for the entire program, which was then utilized by the customer to support funding.

The project execution plan looked in-depth at the refiner's turnaround schedule and process units. This planning allows for all migration cutover phases to be conducted in parallel with previously planned maintenance and turnarounds, effectively reducing unplanned downtime to zero.

The MAVERICK team begins each phase of the program by conducting a Level 3 front-end loading (FEL3) study in order to develop a detailed project execution plan, +/-10% estimate, and reverse-engineering the DCS configuration.

During the course of the FEL3 study, MAVERICK works with multiple contractors to develop a baseline scope and cost along with appropriate



levels of progress reporting of critical deliverables to support the execution phase of each project.

The project estimates are reviewed by Independent Project Analysis (IPA), as well as independent estimate and schedule assurance teams to ensure that stringent customer guidelines are met.

MAVERICK manages all aspects of the program, including working closely with the customer on safety, contracting strategies, procurement planning, constructability, quality, execution planning, scheduling, contingency and budget. Biweekly project meetings with project stakeholders are critical to keeping the projects on track and within budget.

MAVERICK works seamlessly as part of the customer's organization, coordinating efforts with other capital projects that have external dependencies on the migration program.

Our project managers work in alliance with the DCS vendor to provide a state-of-the-art DCS, working directly with them on scheduling hurdles and changes.

MAVERICK developed a new C300 horizontal mounting kit in accordance with Honeywell's standards in order to re-use currently existing panels on site. This kit allows for a very cost-effective and low-risk migration solution.

The MAVERICK Difference

Our refining process knowledge, DCS migration expertise and field services capabilities enabled us to bring the right solutions to this program to ensure successful project completion.



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