

Major Chemical Manufacturer Consolidates Multiple Distributed Control System (DCS) Platforms Using the DCSNext® Solution

A major chemical manufacturer using three different DCSs to control their process saw the need to consolidate their interfaces into one new DCS. One subsystem was severely outdated and limited their capability. A single process on three different platforms proved to be extremely inefficient, as well. MAVERICK stepped in to generate the necessary plan to migrate to the next modern DCS through a front-end loading (FEL3) project.

Objective

The desire was to combine Schneider Electric's Foxboro I/A, Honeywell TDC 2000 and Honeywell Experion® controls system into one Emerson DeltaV™ DCS. Before proceeding with the migration, the customer required a scope of work (SOW), a +/-10% total installed cost (TIC) estimate, a project execution plan (PEP), a project schedule, updated P&IDs, drawings relative to the FEL3 deliverables, a risk assessment and a roles and responsibility matrix.

Results

The manufacturer was successful in using the information to obtain project funding and meet the demanding schedule. MAVERICK's quantity and quality of work exceeded the owner's expectations, and MAVERICK was chosen for the project implementation phase.

Solution

The existing control system architecture had limited capabilities and many obsolete components, resulting in heightened maintenance costs and operational expenses. Furthermore, the operators were tasked with training and keeping up with three DCSs to control their process.

To help the manufacturer obtain funding, MAVERICK developed a +/- 10% TIC estimate. A multitude of tasks were involved for an accurate estimate. Specific services performed were fields surveys, reviews and updates of P&IDs, reviews of loops drawings, investigation on hard and soft I/O, reviews of graphics, system architecture design and review, and equipment specification and review for an accurate bill of material (BOM).

During the system architecture design and review, MAVERICK discovered discrepancies and resolved them by redesigning the network. The manufacturer avoided potential delays in the schedule and unnecessary work.



MAVERICK's thorough DCSNext FEL3 process uncovered risks, issues and needs previously unaccounted for, resulting in better project planning and net cost savings. For example, the manufacturer was able to include the new equipment and engineering in the recommendation for funding.

As part of the BOM specification and review, MAVERICK identified many missing items. Since several were long lead items, the manufacturer avoided a significant delay in schedule due to potential procurement issues.

MAVERICK's deliverables greatly helped the project implementation activities. Resources and tasks to be completed were identified early. Work was structured via a detailed schedule. Project implementation was expedited with multiple layout and location drawings, a list of equipment needed and a detailed I/O index.

The MAVERICK Difference

MAVERICK's DCSNext process provided exceptional value in achieving the level of detail required to fund the project. The deliverables enabled the customer to move into the implementation phase in a very short period of time, which was necessary to support the larger, subsequent project on the horizon.



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