

One Critical Decision can Lead to Many Benefits



A European chemical manufacturer had been operating with a legacy control system, that no longer met the company's evolving needs. The control system did not have the necessary features to allow the organization to follow its new philosophy of putting operators back in charge of production, helping them better understand the processes they run.

Management knew that truly reducing complexity of operations would empower operators to be engaged decision makers, but they only had a 14-month window from design to delivery.

Doing More While Saving Time



Using Emerson's Remote Virtual Office (RVO), team members were able to connect to each other and to technology experts around the globe. More than 20 worldwide project team members could communicate and contribute remotely through cloud engineering and virtual factory acceptance testing (FAT). This environment not only saved on travel time and expense, but also allowed the implementation team to perform FAT while simultaneously redesigning process sequences to put operators back in control of production.

Throughout the project, global contributors were able to keep a close eye on each engineering step, ensuring that the new system would deliver all the features the organization needed while still streamlining and simplifying the human-machine interface the operators would rely on.

The company chose to implement Emerson's DeltaV™ distributed control system (DCS) with Electronic Marshalling to simplify conversion in the field, and to provide operators the full-featured toolset they needed. The organization moved to a decentralized structure, doing away with the auxiliary room and implementing Electronic Marshalling with CHARMs technology in field shelters, speeding up implementation by allowing the transition team to avoid concern for I/O signal types.

Finding Solutions Through Simplifications



The migration solution that management chose allowed the organization to simplify both the turnaround process and overall operations at the plant. The transition team not only managed to complete the entire project in its 14 month window, but also managed to see higher output, more reliability, and lower costs.

Moreover, making smart choices that accelerated implementation allowed the team to ensure that operators were fully prepared for the transition. Operator training coupled with HMI improvements reduced control system complexity, with the result that control room staffing was reduced from 2 operators per room to 1.5, freeing operator hours for other important plant tasks.

In any project, critical decisions made early can have significant impact on success. By streamlining project management and simplifying implementation in the field, the organization was able to implement its operator-centric DCS without running over time.

With operators fully trained on plant startup before commissioning, the commissioning period was reduced to 4 weeks for a project with over 4,000 I/O points.

