

## SPECIALTY CHEMICAL



### Replacing an end-of-life DCS System

*Avid Solutions Implements a DCS Conversion with Minimal Disruption to Processes*

#### Background

A leading global paints and coatings company employing approximately 47,000 people in nearly 80 countries was experiencing issues with its distributed control system (DCS). In addition to paints and coatings, the client is also a major producer of specialty chemicals for the transportation, consumer goods, buildings and infrastructure, and industrial markets. One of the DCS systems for the company is located at a surface chemistry plant in North Carolina where a wide variety of personal care products are manufactured. As the system approached its end-of-life status, the client needed an integrator to perform the upgrade. Since the client had worked with Avid Solutions in the past and was confident about the level of attentiveness they were given during those initial small projects, they once again hired the team at Avid Solutions for this more substantial job.

#### Approach

With a pre-defined design in place, the Avid Solutions engineering team's main goal was to implement the plan in the most efficient way possible. Avid Solutions took the time to understand all of the client's needs, and in turn, focused on the client's methods and goals rather than turn to a 'one-size-fits-all' solution mentality. For instance, the client was satisfied and familiar with their DeltaV DCS, so Avid Solutions was able to use the existing DeltaV software modules as a base when converting to the latest DeltaV technology. The planned configuration included batch systems as well as continuous layers, which proved to be the biggest technical challenge. The client also requested that part of the new system work like a Foxboro Evo Process Automation System, which meant integrating hardware and software to measure, analyze and control the manufacturing process. The Avid Solutions team presented multiple options and carefully explained the pros and cons for each one.

Once the client chose the method that best suited them, Avid Solutions began to execute the project. The Avid Solutions team improved upon the existing DeltaV modules by building custom modules that would interface between the continuous layer (equipment modules) and the batch layer; they converted five reactor trains; and they made certain that the end product had the same basic interactions for the operators in order to ensure a smooth transition. Throughout the process, the Avid Solutions engineering team juggled multiple moving targets, and even spent nights working from a nearby hotel to be close by, just in case immediate onsite support was needed.

#### Results

The client now has a fully automated DCS system that looks and feels like the old system, which will make troubleshooting much easier moving forward. The Avid Solutions team was able to lead the transition with minimal disruption to processes, and they both listened to and truly understood the client's vision in order to implement a creative solution that satisfied everyone involved. The client is now very pleased with its new automated process, as well as the continued support they will receive from their integration partner, Avid Solutions.

#### Applications:

Batch and Continuous Processing

#### Technology:

DeltaV DCS

DeltaV Batch

Winston-Salem, NC  
(336) 771-0010

Raleigh, NC  
(919) 468-4334

Atlanta, GA  
(770) 809-3950

São Paulo, Brazil  
+55 (11) 4723-7191