

“Our Aging Bailey DCS Is Causing Downtime, Safety Issues And Additional Costs! What Is The Fastest Way To Upgrade?”

What Our Client Said

The distributed control system (DCS) for this plant runs the recovery boiler, evaporators, mill air system, mill water system, turbine generator interface, DI plant, boiler feedwater pumps, the common steam headers, and condensate systems. It's critical to our operation, but it has been letting us down with increasing frequency, and now it's time to make a change. Finally, our new DCS standard is DeltaV and we have not had the best success using the OEM to design and configure our systems.

What We Heard

We need a DCS system that is reliable, safe and efficient, but it will be a big job. This project will have 1,500 I/O hardwired points and encompasses virtually every important process in this facility. Our success depends on a great system, a well-thought-out design and an efficient plan for deployment.

What We Did

Increasing breakdowns resulted in a sense of urgency to convert the Bailey DCS system to a DeltaV system as quickly as possible. LSI had the DeltaV experience, pulp and paper team knowledge, and project methodology to execute this high-paced project with minimal downtime and a smooth start-up. We provided all design and configuration services, and also helped with project coordination with the customer. LSI helped with procurement, as well as provided detailed quotes for the items the customer wished to procure.

The system was safely installed and constructed while the facility was in operation. To accomplish this task, LSI provided facility mechanical and electrical design services for the new DeltaV System, HVAC, UPS and instrument power systems. The implementation utilized remote I/O junction boxes with 30% spare cables to facilitate future low-cost instrumentation additions, and a more streamlined cutover. This project also required manufacturing IT/networking, configuration, and graphic screens for approximately 2,000 additional points via various Ethernet and OPC network paths. Throughout the design process, LSI identified and added new instrumentation to improve overall system reliability.

LSI provided:

- Piping and instrumentation diagrams
- Functional specifications
- Building design
- Cable tray design
- Electrical design
- Loop sheets
- Motor drawings
- DeltaV configuration / graphics
- ControlLogix configuration
- Wireless I/O and radio configuration
- OPC configuration
- Modbus Data Acquisition system design
- BMS interface and additional programming
- UPS design
- Mechanical design
- Panel design
- Panel fabrication
- Junction box fabrication
- Instrumentation and electrical training
- Operator training
- Full simulation and FAT
- Construction support
- Pre-outage static checkout
- Start-up and commissioning
- Post start-up support

The Results Speak For Themselves

Fast results with minimal downtime

This project needed to get done quickly, and LSI was up to the task. This project had approximately 7 months between the purchase order being issued to the completion of start-up and commissioning. Start-up and commissioning required half of all I/O and communications to be completed in the first 72 hours of the outage to facilitate the mill coming back online.

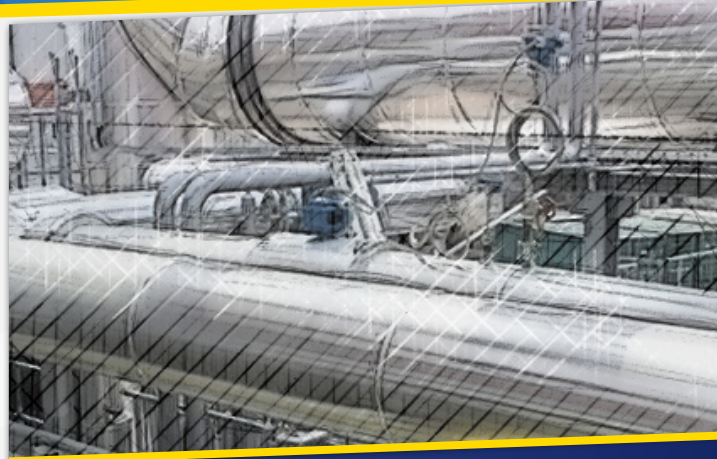
On-budget execution

Even though time was a significant factor in this project, the LSI team completed work without going over budget. Despite the challenges of the scope and the timeline, deadlines were met, and the mill was back to normal / improved operation on schedule.

Long-term savings

Downtime due to problems with the DCS has been reduced from a regular problem to a rare occurrence. In the long term, this improves efficiency and overall plant productivity.

Let LSI listen to your challenges today, and we'll work together to write a success story for you.



LSI listened,

then identified the resources and scheduled the required milestones to complete this project successfully, with a flawless start-up and within the time frame. Because LSI is independent and not owned by any manufacturer, we were able to make decisions in the best interest of the customer, unencumbered by quotas or sales expectations. As a result, we delivered the very best solution for the customer's unique needs.

The DeltaV platform has become the DCS standard for this company, and through 10+ successful DeltaV Conversions for this customer (from a variety of systems including ABB 800xA, ABB MOD 300, Foxboro, Bailey, Moore Controllers, hardwired systems, and PLC5), LSI has earned high marks for completing projects on time, on budget, within compressed schedules, with seamless startups and while improving - not just converting - the process.
