CONTROL SYSTEMS MODERNIZATION USING ROCKWELL ALLEN-BRADLEY PLANTPAX
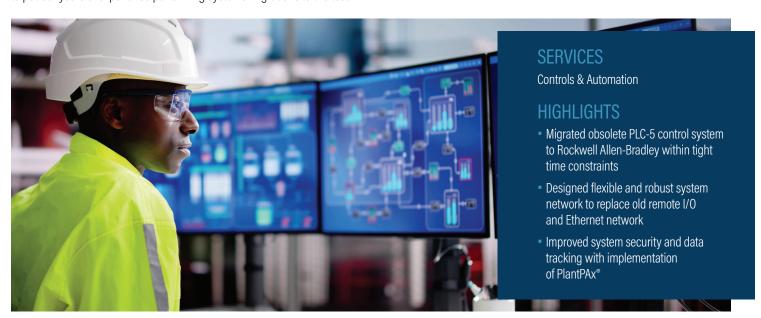
ABOUT THE CLIENT

EAD does some of our best work in facilities and environments with continuous, round-the-clock operations. When a leading global extraction and mining conglomerate called upon our controls engineering experts to update their control systems within a short downtime, we were ready to put our years of experience performing systems migrations to the test.

SERVICES

Controls & Automation

HIGHLIGHTS

- Migrated obsolete PLC-5 control system to Rockwell Allen-Bradley within tight time constraints
- Designed flexible and robust system network to replace old remote I/O and Ethernet network
- Improved system security and data tracking with implementation of PlantPAx®

PROBLEM TO SOLVE

Our client needed an upgrade to their facility control systems. Although they had modified their terminal over the years, their control system had not been updated in line with the changes. As a result, the manufacturer relied on the institutional knowledge of a limited staff and workarounds to keep the terminal in operation. With our client's PLC-5 control system, GE iFix® HMI, and spare parts quickly becoming obsolete, the situation had reached the point where a single additional system failure would force the terminal to cease all production at the 945,000-ton plant. Facing these risks to their business and high production demands, our client sought out the controls expertise at EAD to engineer a long-lasting systems migration solution. As a certified and experienced Rockwell Allen-Bradley provider, EAD was able to quickly upgrade the existing controls system to ControlLogix® and HMI application to FactoryTalk View SE® within the time constraints of the limited production downtime window.

APPROACH & SOLUTION

EAD devised a method to save time by utilizing Allen-Bradley's PLC-5 to ControlLogix migration chassis, enabling the installation electrician to demo the old PLC-5 hardware and install the new ControlLogix hardware for three racks of I/O in less than two hours. The method kept all the field wiring intact during the conversion installation, saving the client time and lowering costs during the time-critical check-out and start-up processes. In line with our commitment to creating a solution that supports our client's long-term growth, we also designed a robust system network that replaced their out-of-date remote I/O and Ethernet network. The new system is flexible enough to support any future business changes such as a system expansion.

RESULT & BENEFIT

EAD was able to successfully migrate and modernize our client's entire system, including all the changes they had made over the years to their terminal. As a final added benefit to our client, EAD implemented Allen-Bradley's PlantPAx system. PlantPAx standardized the structure of our client's control systems, provided plant operators with the ability to monitor and track operational data in real-time and added an extra layer of security to the terminal. EAD met our client's strict down-time limitations, cutting the system over and completing the check-out and commissioning in less than two days.