



PLC SYSTEM MODERNIZATION

Improve productivity and protect your technology investment.

Start your journey to new levels of productivity, safety, and cybersecurity by upgrading your PLC automation systems to the latest Modicon EcoStruxure™ Control Expert (formerly known as Unity Pro) based platforms. This new platform provides a number of benefits over antiquated systems including:

- Discovery & onboarding of connected products
- Configuration & messaging with devices
- Collection & storage of device data
- The ability to perform local analytics & easy configuration upgrades at the device level

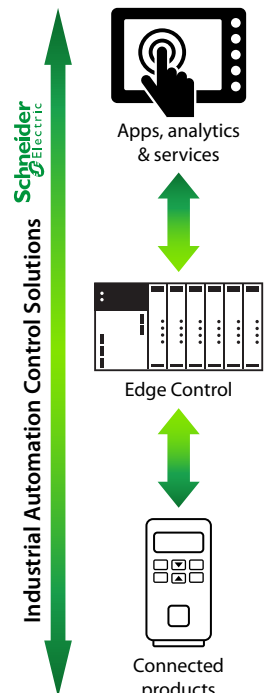
GTH upgrade and migration solutions allow you to upgrade while preserving your automation hardware and software investment, whether you are starting from our legacy Modicon, SquareD, Telemecanique PLCs or from many third-party platforms.

GTH SERVICES

UL Control Panels • PLC / HMI Programming • Instrument Calibration • Wireless Integration

SOFTWARE & INSTRUMENTATION

Smart Manufacturing • Programmable Logic Controllers • HMI / SCADA Software • Remote Monitoring Devices • Flow Meters • Temperature, Pressure, & Level Transmitters • Process Controllers • Paperless Data Acquisition • Analytical Instrumentation • Gas Detection • Combustion Efficiency Systems



CASE STUDY

13 HOT STANDBY PLC SYSTEM UPGRADES

BACKGROUND

A gold mine in Northern Nevada was using Modicon Quantum Hardware for PLC control. While still operational, it had reached the end of its commercial life. Availability of replacement parts is a concern and the programming software is not compliant with current Windows OS.

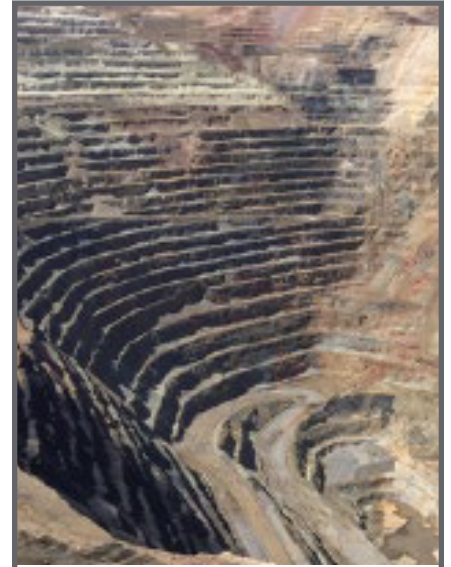
CHALLENGE

The mine had specified down time of seven days where our team could remove all 13 Quantum hot standby PLC systems and replace them with Modicon's M580 hot standby PLC. Additionally, connectivity to all of the existing Remote I/O networking over coax had to be maintained. The redundant managed Ethernet switches for PLC and SCADA networking were also in need of replacement.

SOLUTION

GTH and Schneider Electric provided proof of concept and engineering design services to validate that the conversion to M580 PLCs would be feasible in their timeframe. GTH converted existing ladder logic applications into the Control Expert environment, setup all systems and test racks to validate the S908 to Ethernet gateways. Additionally Modbus Plus and Modbus Serial Gateways were vetted.

Factory Acceptance Testing was setup using a virtual environment where we loaded the existing SCADA application with all PLC's connected through the new switches to simulate the installed configuration. With the client viewing the progress remotely through Microsoft Teams, the system was accepted and confirmed ready to install. Once on site the installation and testing team installed and validated the complete system 3 days ahead of schedule.



BENEFITS

- Seven figure cost savings over optional DCS solution from competition.
- Extended life of Control System by 20+ years.
- Minimized risk and reduced down time.
- Support for current Windows OS and enhanced CyberSecurity.
- Improved operator performance



LOOKING FOR A TURNKEY SOLUTION?

With our two UL panel shops located in California and Nevada, we are able to provide a plug-and-play PLC replacement solution. Our engineering department can assist with product selection and project design at which point rendering will be created in AutoCAD Electric or E-Plan. Once the drawings are approved, the panel will be expertly built and wired to our rigorous standards using high quality components and instrumentation. Your final panel is then thoroughly tested and, if needed, start up assistance is provided on site. In the end, our goal is to provide quality products and services to support our key clients and industries.



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