RANDAL R. OLSON, JR, PE

SYSTEMS INTEGRATOR

Randal is an Electrical Engineer with over 11 years of experience working in the Water/Wastewater and Manufacturing Industry. He specializes in SCADA design, PLC and OIT programming, proactive continuous improvement initiatives, and electrical troubleshooting of automated equipment. Randal possesses excellent interpersonal and communication abilities, and develops new skills quickly. He enjoys being part of a team, and thrives in demanding and challenging environments.

EDUCATION

B.S. Electrical Engineering

University of Valparaiso, Valparaiso, Indiana 2013

Joined Firm in 2019

Years of Experience: 11

CERTIFICATIONS

Licensed Professional Engineer: Illinois

Engineer in Training: IN

Six Sigma Green Belt

Technical Proficiencies

RSLogix/Studio 5000 & 500, FactoryTalk View ME & SE, GE iFix & Proficy Machine Edition, AutoCAD, Microsoft Office Suite, Remote Access

REPRESENTATIVE PROJECTS

Woodridge, IL

Support Services

Randy provided onsite and remote troubleshooting support of the Village's SCADA server and automation equipment. He also has performed routine proactive control panel maintenance at each of the Village's Water and Wastewater Sites.

Lockport, IL

SCADA System Upgrades

Randal lead the project to replace the City's existing cloud-based SCADA system to an on-premises solution. He coordinated multiple disciplines within Concentric to ensure the project stayed on schedule and under budget. Randal also assisted the team with deploying the new SCADA server, graphic development, and migrating the City's Water and Wastewater sites over to the new SCADA system.

Yorkville-Bristol Sanitary District, IL

SCADA Upgrades - Phase 1

Randal was the lead integrator for this SCADA upgrade project. He redeveloped the PLC programs that control Main Pump Station, Secondary Pump Station, and Aeration System at the Wastewater Treatment Plant. Randal also designed and deployed a new SCADA system using Ignition by Inductive Automation to remotely control and monitor each of the Plant's processes. The SCADA graphics developed used High Performance Graphic methodologies, increasing situational awareness of the treatment plant.

Gurnee, IL

Pressure Zone 5 SCADA Integration

The Village of Gurnee added a new Booster Pump Station, two Pressure Reducing Stations, and Elevated Storage Tank to create a pressure zone within their water distribution system. Randal was responsible for the programming, installation, and start-up of each of the stations. He successfully integrated each site into the Village's existing SCADA system using 900 MHz radios.

CONCENTRIC INTEGRATION

Fox River Valley Water Reclamation District, IL

Pump Station 31 Replacement

Randal served as the primary integrator for this pump station replacement project. He effectively took the Engineering Design Specifications and successfully created the PLC program from them. Randal also developed user-friendly, high performance OIT and SCADA graphics using the Rockwell Automation FactoryTalk View suite.

Oswego, IL

Uninterrupted Power Supply and Surge Suppression Installation

Randal successfully integrated uninterrupted power supplies and surge suppression in each of the Village's existing SCADA Well Panels. The Village had a history of component failures due to lightning strikes and utility power surges. Now that the equipment is protected, the Village expects to see a reduction in failed equipment. Randal worked closely with the Village to minimize the downtime of each Well and identified improvements to their system along the way.

WHILE WORKING FOR OTHERS:

Progress Rail

Senior Electrical Controls Engineer

Designed and implemented PLC, HMI, and Robot program modifications on High Volume equipment to ensure quality, reduce cycle-time, and improve part traceability.

Initiated control upgrades on machinery with obsolete PLC, HMI, and VFD components; updated electrical schematics to reflect revisions.

Assisted skilled tradesmen in diagnosing malfunctioned manufacturing equipment to identify the root cause of breakdown, recommended remedies to problems and coordinated with management to provide status updates.

Developed and maintained plant SCADA system to increase visibility of automated manufacturing cells.

Successfully completed Six Sigma Green Belt Project using D.M.A.I.C. methodologies to reduce laser consumable material usage resulting in $22,000 of hard savings.