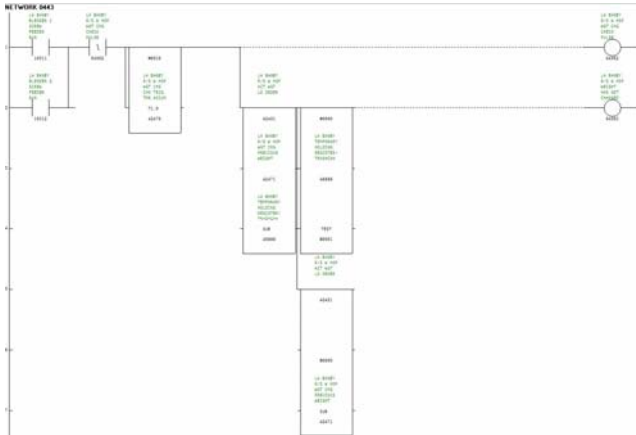


Control Masters Application Case Study

Batching System Rewrite



Technologies

Batching

Services Provided

PLC Integration

SCADA / HMI Integration

Project Description

This project provided an updated PLC based batching system for 2 similar Banbury systems. The original control logic was written in 1988 and controlled both Banbury Systems from the same program. Since that time, the program had been split into 2 separate PLC programs and over time had been further changed by numerous individuals. Problems had developed because of these changes that were causing downtime, safety issues, inconsistent batches and raw material waste. This control logic had also become very difficult to troubleshoot, maintain and change.

These systems are controlled by Modicon Quantum 434 PLC's, Quantum and 800 series I/O and use both USData MMI and G.E. Datapanel HMI's to provide operator control and feedback.

The basic operation of these systems involves taking raw materials, weighing them and then dropping them into the Banbury when called for. Differences between the 2 systems were minor and it was decided to use common addresses that were available to each of the programs. This would allow us to rewrite and functionally test one line and then re-use the same code in the other line.

The first line was completed, installed and tested. Some additional safety features were added. When the operators were comfortable with the operation of the system, the logic was copied to the second line and it was installed and tested. By utilizing common code between the 2 systems, startup was simple and downtime was negligible.

The result of this rewrite of the raw material supply portion of the program has resulted in better control of raw materials, an increase in safety, reduced downtime, easier troubleshooting and an increase in quality and consistency of the product.