

Smart Plant Instrumentation (SPI) Conversion

Cedar Bayou, TX Petrochemical Plant



C2C's engineering team converted over 30,000 I/O from AutoCAD drawings to SPI. This project began with 100% field verification of junction box, marshaling, and FTA wiring diagrams.

In many cases, there were no drawings available, and information was created from scratch. 20% of loops drawings did not exist, and approximately 60% of existing loops had incorrect information. Our engineers obtained an IO list directly from the DCS to cross-reference with the red lines to ensure the accuracy of the data. The team identified several opportunities to increase the wiring, which allowed us to convert more than double the originally requested IO for the same hours. For example, some units did not have any IO loaded into SPI. For those units, we created an import file to

reduce data entry time. Our engineering team created a tracking tool to update the progress of each process unit as it was cut over to SPI. The final step in this project was to void all old documentation, modify the drawings that now refer to SPI, and communicate which units were live for the plant to utilize. This project was completed over three years.