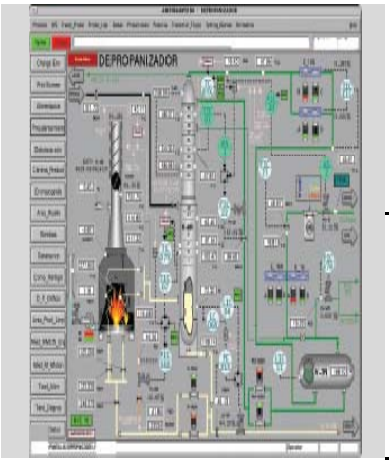
Major Food & Beverage Manufacturer Requests Audit and Simulation of System for Assessing Remediation Requirements

A longtime customer of MAVERICK requested support with a complex Rockwell based application. The customer was looking for verifiable proof that an HMI software and/or PLC firmware issue was causing application problems to occur onsite. MAVERICK performed an application audit review and developed a full blown simulation system to determine the root cause of their problem.



Main Objective

The customer required a partner capable of remotely simulating the real world conditions experienced onsite while also having the technical expertise to perform a detailed code audit. By developing a full blown test bed, replicating the errors being encountered onsite, and then testing possible solutions, a viable remediation plan could be tested and recommended to the customer.

Customer Results

At the completion of the application audit, MAVERICK was able to confirm that the PLC/HMI design and program implementation followed all the recommendations and general guidelines imposed by the hardware and software manufacturers. This independent audit validated the customer's initial assumption that the PLC firmware may be the eventual root cause of the problem.

Application Description

- MAVERICK assembled a team of subject matter experts to perform an overall audit to determine the root cause of the issue experience by the customer. The team was brought in to investigate the problem and recommend solutions verifiable thru offsite simulation.
- The onsite PLC and HMI configurations were replicated in MAVERICK's simulation lab, allowing the team to perform additional tests in a controlled manner.
- The data collected from the simulation setup was analyzed to determine the root-cause of the problem along with the related remediation plan.
- MAVERICK also worked in concert with the PLC manufacturer to ensure the long term solution would be provided to the customer as quickly as possible.
- The customer, MAVERICK, and the PLC manufacturer started to discuss and test possible solutions. Upon agreement of the root cause, it was unanimously agreed that it would take longer for the manufacturer to fix the firmware issue than preferred. The customer requested that MAVERICK provide a temporary work-around. To safeguard the existing application, the customer also requested that the manufacturer validate the MAVERICK developed work-around.
- The jointly approved work-around was commissioned on-site and the problem was remediated until such time as a patch is released from the PLC manufacturer.
- A formal report was issued to the customer with recommendations based on MAVERICK's findings. A follow-up simulation platform was developed for further testing for the suspected firmware.

The MAVERICK Difference

By utilizing a systematic approach to emulate the plant conditions, MAVERICK was able to assist in determining the root cause of the problem experienced by the customer. Working as a team with the customer and the manufacturer, issues were addressed, a plan was executed, and the trusting and long lasting relationship has been maintained.

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