

Case-Study: SPC ONLINE - Automotive Industry

Company:

TRW Automotive is among the world's ten largest automotive suppliers and is one of the top financial performers in the industry. The company supplies to more than 40 major vehicle manufacturers and 250 nameplates, holding the leading position in all of its primary product categories.

Solution:

A web-based Statistical Process Control application to control, manage, monitor and report the data read real-time from PLC's on the production line.

Industry:

Automotive

Challenge:

The application was required to be designed and developed based on the information that is received from the PLC's and alert the users by sending messages by email and to their cellular phones.

Background

The client is one of the top suppliers to all the major vehicle manufacturers globally, and is the world leader in automotive safety, developing and producing the industry's widest Variety of active and passive systems. More than 4500 engineers and researchers are involved in the development of these advanced systems.

Solution:

A combination of Fortech's consulting services, knowledge transfer about Web services technology, Fortech's ASM Developer and Server Model services to create a highly reliable mechanism to create a new web services infrastructure to handle energy transactions.

Problem:

The online SPC system had to be flexible to work on a variety of Allen Bradley PLCs, to be simple enough to be setup by production engineer in a few minutes, able to interface with the clients SPC database, traceability database, email, SMTP systems, and it had to be live in 30 days.

Solution :

A combination of Fortech's consulting services, automation of existing systems and processes, and utilizing Fortech's A2S model to create a highly reliable mechanism to create a new integrate web services infrastructure to handle the database configuration, users, messaging, and data collection from PLC's. Fortech's solution was able to gather real-time data and coordinate the operations of the line and provided measurable OEE information.



Results:

The integrated solution went live on time, on budget and has had no failures. Benefits include:

- Simplified web-based configuration for multiple lines and multiple PLCs.
- Full integration with off-line SPC Database that eliminate double entry of test plan setup
- Customizable view of SPC Charts: x-bar, x-bar&r, histogram, pareto and 18 other charts
- Flexible alarm notification based on pre-defined rules
- Immediate notification of responsible personal in the event of quality effects via SMS or email
- Ability to respond to an correct quality issues to reduce scrap
- The Fortech system delivers real-time information for improve decision making that delivered important and immediate return on investment.