Automated out-of-control action plans drives 400% in reduction of unplanned downtime

The challenge

A high-value electronics manufacturer was experiencing significant downtime driven by out-of-control process (OCAP) alerts. When an alert was triggered, production was halted, and the operator and engineer researched and addressed the issue before production resumed. This was resulting in unplanned line stops that negatively impacted production rates, yield, productivity and engineering resources.

The complexity

The process measured hundreds of specifications across 400 tools based on a combination of manual tracking and data from various machines, tools and business systems. The standard operating procedures (SOPS) were paper-based and were infrequently updated. Operators and engineers relied on tribal knowledge and personal experience to find and address the issues, which was time consuming.

The solution

Within three months, the company implemented the SymphonyAI Industrial Platform to automate the process from end-to-end. Disparate data sources were integrated, and operators and engineers were automatically presented critical information about the run and production anomalies detected. The company immediately found that many line stops were caused by a high number of false-positive alerts, triggered by the testing equipment, which were eliminated through improved visibility and proper control limits. It also found recurring issues, that were addressed through consistently enforced procedural control and standard setup procedures.

SOPs were automated using SymphonyAI Industrial's self-directed workflow process to guide work and trigger predetermined responses for troubleshooting alerts. Automated track and trace capabilities were utilized to historize the actions taken to remediate issues and document the employee who performed the work for future insight. The system captured root causes and learnings which fed continuous improvement efforts.

The value delivered

Within four months after deploying the automated solution, operations leadership recognized a **400% reduction in unplanned downtime**. Other benefits included:

- 80% reduction in OCAP false alarms.
- Fewer alerts allowed operators and engineers to focus on more important, value-added activities.
- Engineers were redeployed from reacting to a barrage of alerts to addressing root causes and institutionalizing improvements on the critical few.
- Improved productivity and effectiveness through automated OCAP process which reduced paperwork, eliminated search time and drove predetermined/standardized responses.

Global standardization • Enterprise integration • Rapid and cost effective deployment • Productivity, yield inventory