Ubisense

Automotive Manufacturing

SMART FACTORY IN ACTION

LINE REBALANCING

Smart Factory virtual asset identification enabled a leading American automaker to eliminate the burden and cost of reconfiguring fixed-infrastructure based identification for line and process rebalancing.

THE CHALLENGE

To reduce the cost, waste and duration of the automotive assembly line rebalancing process.

A major American auto-manufacturer had identified that the ongoing process of line rebalancing - which requires the moving of processes and workstations to achieve optimum flow in production – was causing significant waste and negatively impacting production. The automaker was using fixed scanners on its plant to identify each vehicle on the assembly line, which had to be refitted and rebalanced more frequently whenever a process is moved or a new process is introduced. Whenever the line needed adjusting, all of the scanners and associated equipment had to be moved, a laborious and wasteful task.

- Reconfiguring fixed infrastructure was a burdensome and inefficient process that was costing the auto-maker significant man hours
- Because of the duration and disruption involved, line rebalancing had to be scheduled at the weekend or afterhours, adding to the overtime cost
- There was additional risk to equipment and staff safety when physically moving the fixed ID system around the plant

THE SMART FACTORY SOLUTION

Smart Factory virtualized the vehicle identification process, completely eliminating the cost and waste associated with reconfiguring fixed infrastructure.

The Smart Factory real-time location system virtualized the American automakers' asset ID mechanism, creating software-defined trigger points for processes as each vehicle moved along the production line.

This not only removed the need for a fixed manual ID system, it enabled each workstation to be rebalanced in minutes, at the click of a mouse using the Smart Factory interface. It massively decreased the burden, time and resource required for line rebalancing.

THE RESULTS

1. Eliminated the cost and non-value added work required to maintain and move fixed infrastructure based identification systems
2. Decreased burden by significantly shortening the time requirement for line rebalancing, and giving the car maker more options about when the work could be scheduled
3. Improved the American auto-manufacturer's quality control capabilities, by making the introduction of ID-enabled controls for less-critical processes feasible
4. Increased productivity, and gave the automaker the process flexibility necessary to cope with increased product variation