

## MAHLE

CLIENT

Industry &  
Infrastructure

INDUSTRY

## Design · Develop

DELIVERED AS

• .NET

• Bespoke IoT

## APPLICATION MODERNISATION

# Modernising line-side quality control for MAHLE

A modern .NET solution that prints product labels from automated quality checks on MAHLE's South African lines, with central configuration and full traceability.

01

**THE CHALLENGE**

MAHLE is an international development partner and supplier to the automotive industry. At its South African operations it wanted to modernise an ageing line-side process that prints product labels based on the results of quality-assurance checks run by automated PLC jigs.

02

**THE APPROACH**

We replaced a decentralised system with a modern .NET solution, rolled out one production line at a time so the old system could be retired gradually. Configuration, audit and reporting all moved to one central place, and end users can now create and apply new label designs without needing a developer. We added device-driver-level printing so MAHLE can use any Windows-compatible label printer, and a software interpreter between the test jig and the system to standardise the messages it receives. The solution supports multiple languages and non-Latin character sets, which matters for an international business, and every part can be traced back to a date and time, operator, test jig, production line and batch.

03

**THE OUTCOME**

MAHLE now manages its line-side quality control centrally, with end-user configuration, auditing and reporting built in. The modernised system cut technical debt and removed a dependency on external capability and proprietary code, and historic labels can be reprinted whenever they are needed.

04

**SUMMARY & BENEFITS**

- ✓ Central configuration, audit and reporting, with end-user label design.
- ✓ Full end-to-end traceability for every part, down to operator and batch.
- ✓ Less technical debt and no dependency on proprietary hardware or code.

CASE REFERENCE · INDUSTRY &amp; INFRASTRUCTURE

MAHLE



Microsoft

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