

VIA's MAN-IT™ Saves OEM Replacement of Thousands of Parts

Case Study

Introduction:

Vehiclemakers have strict testing guidelines for suppliers regarding part specifications, requiring that finished parts that are shipped fall within the upper and lower control limits. Test results for a group of parts may be requested by vehiclemakers to verify these results, especially if the particular part has failed when installed on vehicles.

Traditional gathering and reporting of this information has been manual; manual review of data that was manually recorded on production sheets, and then manual consolidation of test results, serial numbers, etc. and entry onto a spreadsheet. The process culminates in a report taking four to six weeks to complete to send to the customer.

Situation:

The testing policy of a Tier 1 supplier of steering wheel assemblies was to e-test, or electronically test, every horn as it was installed in the steering wheel assembly at the supplier's factory. The criteria gathered by this test were test values and connections that control the horn and the cruise control. About 25,000 steering wheels are produced per week at the plant.

Challenge:

The Tier 1 supplier needed to provide a customer with a report compiling all e-test results for horns and cruise controls installed during the steering wheel assembly for a consecutive three-month period. Test results of more than 300,000 steering wheels were required.

Manually preparing this report would consume 15 days of a full-time person, either internally (taken from a current position) or someone hired externally.

If the Tier 1 wanted to extract the test values from the PLC, a programmer, with PLC language expertise, would be required to write a program to extract the data and format it into a readable report. If the PLC did not have a large storage capacity of information, some of the data may have been written over. Without an internal resource to do this, the cost would have been about \$6,000 and would have taken about five days.

Solution:

The supplier was using VIA's manufacturing information tool, MAN-IT, which collected, sorted and filed this data continually, without write-over. MAN-IT was configured to capture process variables and test results (pass, fail, and the details) at each operation. The data the customer requested had been captured and stored in an electronic format.

Result:

MAN-IT produced a report with the requested information within 15 minutes of the vehiclemaker's request, allowing it to replace only 12 steering wheels because of the detailed results from the MAN-IT report. It had not expected the report for at least several weeks, and was prepared to replace thousands more based on past experience. This quick response exceeded the customer's expectations and allowed the vehiclemaker to quickly assess the situation with the steering wheels in a positive and cost-efficient manner that gained status for the supplier and saved the OEM money.