

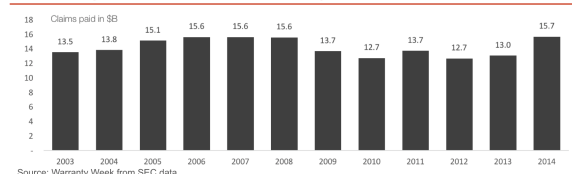
CONTROLTEC

UNLOCKING THE POWER OF DATA

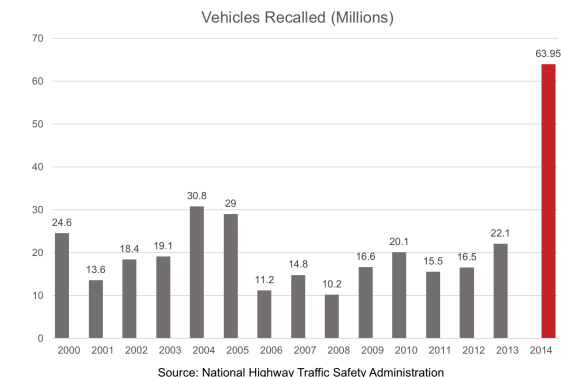
PREVENT RECALLS BEFORE THEY HAPPEN

In 2014, warranties and vehicle recalls reached record heights not seen before within the past decade. Global warranty claims paid by automotive companies were up 20% reaching \$15.7 billion, and the total mount of vehicles recalled by OEMs hit 63.95 million - a 289% increase from the previous year. These two factors together have hampered the ability for growth in the automotive industry and have been a drag on OEM earnings. Any incremental gains to prevent unnecessary recall events and mitigate warranty costs will help vehicle manufacturers improve the customer experience and boost profitability.

Global Warranty Claims of U.S. Based Automotive Companies



Source: Warranty Week from SEC data



Source: National Highway Traffic Safety Administration

Here is a real-world use case of how Control-Tec® was able to identify a recall threat and avert a launch delay:

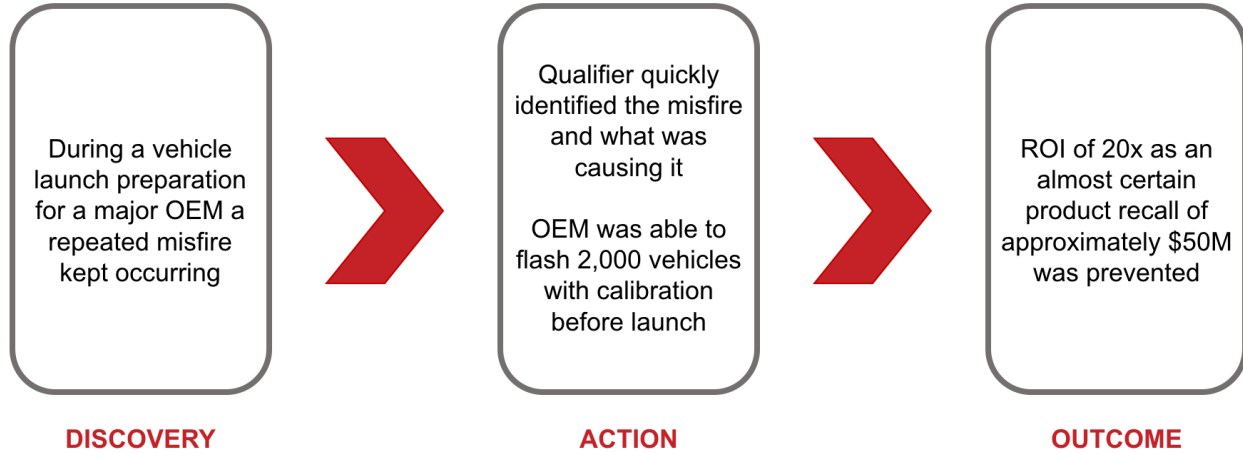
DISCOVERY

A major OEM was in preparation for the launch of its latest new full-size truck. It had passed every stringent quality test and was deemed ready to send to market – until Control-Tec’s Qualifier™ system noticed a misfire occurrence that wasn’t being detected by the check-engine light. When the scenario was repeated, the misfire continued to occur as well. An on-time launch was now in jeopardy with significant promotion and marketing dollars at risk.

ACTION

Through use of the Qualifier platform, Control-Tec was able to quickly identify and characterize the misfire event - which wasn’t triggering the check-engine light - along with the driving conditions at the root cause. With this deeper knowledge of the issue, the OEM was able to flash 2,000 vehicles with an emergency calibration update before the dealer shipment, ensuring the new product would launch on schedule.

CASE STUDY | LIGHT DUTY OEM



Test Vehicles	72
Miles Driven	3.85 M
Drive Cycles	169,478
Program Length	10 Months
Events Triggered	1,000's
Result	20x ROI

OUTCOME

Due to Control-Tec's deep analysis of the vehicle data – and ability to uncover an issue that wasn't being detected by the check-engine light - the OEM was able to prevent a mandatory recall that would have cost an estimated \$50million. With the real-time data processing and analytics capability, the OE was also able to fix the issue before the critical launch date...keeping the marketing and promotion schedule on track. Overall, the OE was able to realize a 20x return on investment in the Control-Tec solution.

ABOUT CONTROL-TEC

Established in 2009, **CONTROLTEC®**, is a worldwide provider of telematics and analytics solutions currently serving the transportation industries in the light duty, heavy duty, agriculture, locomotive, and industrial sectors. CT® combines affordable information technology with comprehensive data acquisition to provide an enterprise solution for fleet management, product development and quality. More than 80% of US automotive OEMs have utilized our tools to deliver the speed, flexibility, reliability, cost savings and collaboration needed in today's environment.