

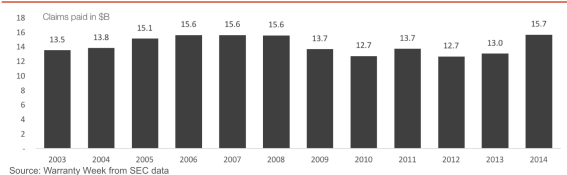
CONTROLTEC

UNLOCKING THE POWER OF DATA

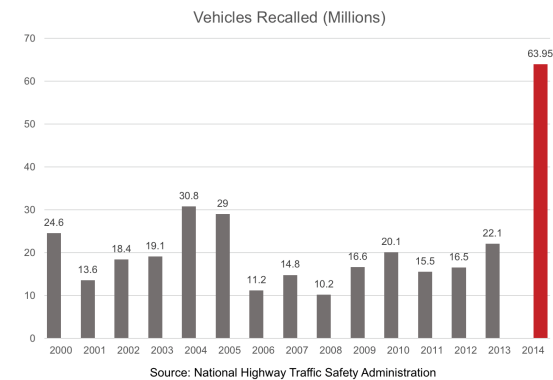
PREVENT RECALLS BEFORE THEY HAPPEN

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:

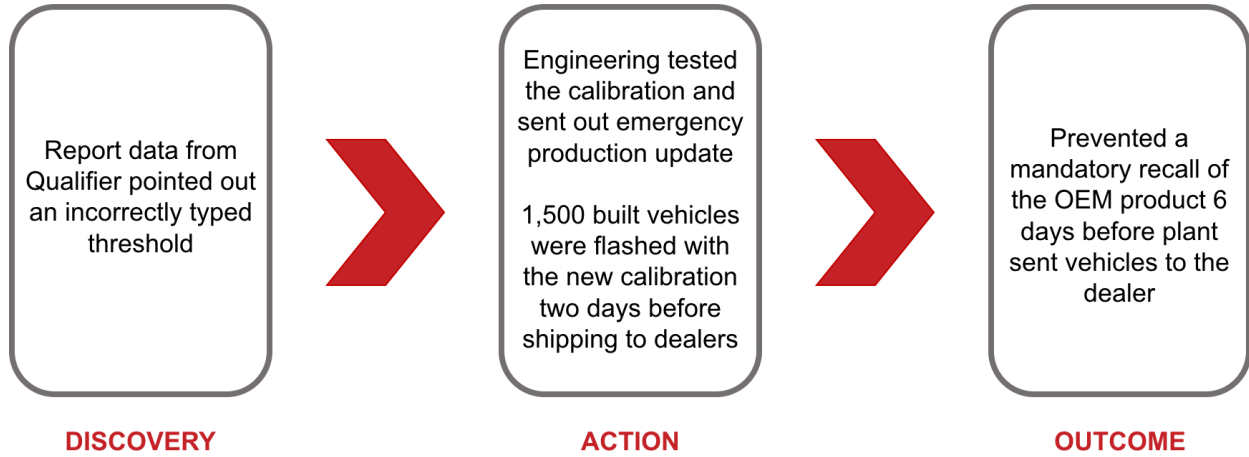
DISCOVERY

A major light duty OEM was scheduled to send the first set of vehicles to dealers that were ready to be sold to the public on a Tuesday. Six days prior to the vehicles being shipped, a data report from the Control-Tec Qualifier™ system identified that the vehicles' software contained an incorrectly typed threshold – a simple error that could have delayed the launch and had a major impact on costs.

ACTION

The OEM was immediately notified of this incorrect threshold through the Qualifier platform and management put a hold on the 1,500 vehicles in the yard waiting to be shipped, so the necessary changes could be made to prevent this mistake from becoming a recall. Engineering for the OEM was able to test out a new calibration by Thursday of that week and push out an emergency production calibration on Friday. By Sunday, all 1,500 vehicles in the yard were flashed and ready for on-schedule delivery to dealerships.

CASE STUDY | LIGHT DUTY OEM



Test Vehicles	27
Miles Driven	180,311
Drive Cycles	13,989
Program Length	10 Months
Events Triggered	1,000's
Result	\$5M+ Savings

OUTCOME

Due to Control-Tec's real-time data processing and analytics, the OEM was able to prevent a mandatory recall less than a week before the plant sent vehicles to dealers. By identifying the problem ahead of vehicle release, the OEM was able save approximately \$5million in emergency travel costs to fix the vehicles once in the field. Early warning detection from the Control-Tec data also allowed the new product launch plan to stay on schedule, preventing potentially large cost increases in product marketing and promotional costs typically incurred during new OEM product launches.

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.