

## AUTOMOTIVE SAFETY CRASH TEST REQUEST & DATA ACQUISITION SYSTEM

An automotive OEM wanted to streamline their “safety crash testing” process to remove waste and inefficiencies being caused by outdated systems and manual processes, and increase the accuracy of their real-time data acquisition.

### Business Problem

Our client wanted an integrated real-time data acquisition system for all vehicle safety labs. The system needed to be able to control and collect data from 3rd party vendor hardware. The system architecture needed to be designed to accommodate any other future hardware changes with minor modifications. In addition, they required a web based “Test Request” manager for the requesters to request tests with detailed test parameters. The system also needed to interact with other existing systems to acquire and transfer crash data.

### CGN Solution

For the data acquisition piece of the solution, CGN developed and implemented a solution that defined the test setup parameters and processes, and also retrieved data from the data acquisition hardware once the test was completed. The test setup process required a certain series of tasks to be completed before the test could be ran. For the test request piece of the solution, CGN developed and implemented a web based test request manager that allowed requesters to set up and manage detailed test requests. The functionality allowed creation of new test requests by copying templates or previous test requests, including channel setup information.

### Customer Benefit

The system globalized the related processes, request templates and reports, and substantially improved productivity by eliminating the paperwork maze. Through careful analysis and design, CGN was also able to deliver a system with increased automation (ability to copy templates or previous test request setups), accuracy (reduced duplicate costly duplication of test builds and setup errors), flexibility (the ability to connect to multiple hardware platforms) and throughput (ability to complete more tests with less personnel in a shorter period of time).

### SCOPE

*Replace the current manual/paper test request process with a global online request system and upgrade the current data acquisition software and hardware.*

### BUSINESS DRIVERS

*Streamline operations; reduce cost via reduction of costly errors and mistakes; reduce setup time to enable increased throughput of the safety lab testing.*

### TECHNOLOGY

*ASP, Oracle, Java Applets (Spreadsheets and Tree applets), Microsoft Visual Studio, Microsoft IIS, Microsoft Excel Macros, Oracle Reports, Visual C++, ADO*



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