

## MULTI-VARIABLE OPTIMIZATION

A division of a large equipment manufacturer needed the means to optimize engine test data for various optimization goals.

### Business Problem

After engines were tested on the test rig, the test data generated needed to be optimized. Manual creation of optimization functions and the associated processing was time consuming and needed to be repeated several times. Also, there was no provision to feed optimized data to downstream processes.

### CGN Solution

CGN put together a team of talented IT professionals with relevant engineering and math backgrounds to work with the client's engineers and specialized software to build a web based tool. The tool allows for an intuitive interface to display information coming from the test rigs and lets the users interactively build the optimization function. The specialized software then sends the optimized data back to the user in real time. The tool allows the users to reuse templates they built for multiple projects, thereby reducing the manual work involved. All the pertinent project data is saved in a database for future analysis of multiple similar projects.

### Customer Benefit

Improved workflow, reduction in manual work, and a reduction in errors and rework leading to time savings and improved capacity to handle multiple projects (process capacity and throughput improvements).

### SCOPE

*Improve efficiency and effectiveness of the existing manual process*

### BUSINESS DRIVERS

*Improve process efficiency*



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