



Industry Automotive

Headquarters Detroit MI

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This automotive information supplier provides its clients with leading-edge physics-based simulation technology, allowing users to simulate automotive performance and fuel economy. Fueled by data from tens-of-thousands of vehicles, their product, empowers planners and engineers to assess the competition and optimize vehicles with breathtaking speed and efficiency.

After reviewing options for the next generation of their product, the client chose a comprehensive platform to preserve its technical leadership position: Logicdrop $Sparks^{\mathsf{TM}}$, thereby reducing time and cost for feature development, increasing performance, simplifying maintenance and growing their customer base.

Thousands of vehicles can now be simulated at once. No other competitor is capable of this scale. 60,000 vehicles can be simulated in 3 minutes, compared to the weeks, or even months, it would previously take others to complete the same work."

- President, North American Automotive Supplier

CHALLENGES

In order to meet the demands of a global customer base and changing regulatory environment, The client's breakthrough software needed to be taken to the next level by enhancing these four key areas:

Scalability: The client needed its cloud-hosted platform to automatically scale to accommodate a growing user base.

Adaptability: The client's first generation product was developed with a traditional software architecture, which made it difficult to add new features, make changes or customize the software for different clients.

Efficiency: The client was analyzing and managing thousands of data points and calculations. They needed a platform that could improve the speed of computations and adhere to the complex requirements and constraints of physics-based algorithms.

Maintenance: The client required a solution to minimize internal software resources needed to implement future product enhancements.

SOLUTION

By partnering with Logicdrop and using their flagship product, Logicdrop Sparks $^{\text{TM}}$, the client took advantage of many advances in modern computing. These advantages include: distributed computation, machine learning and decision making algorithms, as well as features that can be integrated into a wide variety of platforms.

The net result of using the Logicdrop Sparks Platform is a fast, precise and intelligent computation platform that enables The client to reduce their vehicle simulation time from weeks to minutes, while also reducing the margin of error. Logicdrop Sparks's intuitive interface allows the user to run millions of complex computations by simply editing and uploading an Excel spreadsheet. The Logicdrop-designed architecture is readily modifiable and thus built to last. New automotive technologies and features can easily be added and changed on-the-fly without the need of software developers.



What do you like most about our product or solution?

The flexibility, particularly the ease of what you can create and change is incredible. We were always reluctant to add features because of the complexity of modifying a large code base. Now we can write and add features in very quickly and easily validate them. We see enhancements much more rapidly than the first time around. That's key.

Can you think of any other potential uses for our solution or platform?

The uses are endless, whether Logicdrop Sparks is used for financial analytics, marketing, or anything that has a lot of complex rules and algorithms with a great deal of interactions, it can make a big impact.

Our product has a lot of interaction between all the elements of the vehicle, powertrain, tire dynamics, weights and efficiency. All of these interactions make it very difficult to build traditionally. Previously the only way to do this was maintaining many tedious conditional statements which quickly ballooned out, to the point that is was no longer manageable. Now every time we want to add something, it's just one rule.

What would you like from Logicdrop in the future?

I see Logicdrop as playing a big part in our future products. Logicdrop Sparks has given us the freedom necessary to build out innovative solutions with astonishing speed. With Logicdrop as our partner, we are certain we can take our product and the industry itself to a place we only dreamed possible.

QUICK STATS

Time to implement a new feature



Compute time (60,000 vehicles)



This architecture enabled the delivery of a world-class product that exceeds our customer expectations and poises us to transform the industry."

- Director of Product Planning

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About Logicdrop

Logicdrop Sparks is an enterprise intelligence platform and open API for developing and deploying expert systems, decision automation and data analytics solutions, both on-premise and in the cloud.

Built with today's savvy business user in mind, the platform empowers companies to centrally manage and run automated processes they create by pairing a natural business language alongside their own data and expertise.



Want to learn more?

One of our experts can show you how Logicdrop Sparks can put your data to work.

+1 (888) 229-2817

https://www.logicdrop.com/demo