

Automating Raw Data Analysis



Company: Navistar

Website: Navistar.com

City/Region: Lisle, IL

Size: 16,269 employees

Industry: Trucks & Other Vehicles

Company Profile:

Navistar – Drive to Deliver

A Navistar, a Fortune 500 (#259 as of June 2014) manufacturer of commercial trucks, buses, defense vehicles and engines, product development involves more than what rolls off the assembly line. It involves the health and safety of customers and any product's potential impact on the environment. This philosophy has become the basis of Navistar's formal Product Stewardship Program.



217 W. 10th St. Suite 115
Indianapolis, IN 46202
(317) 238-3457

THE CHALLENGE:

Safe vehicle parts are crucial to Navistar International's success. The company's vision is to find new ways to help America's workers go that extra mile, efforts driven by innovation that's redefining manufacturing excellence. Thus, Navistar's Parts and Warranty/Claims division plays a critical role in the manufacturer's success.

Employees required the ability and the tools to identify, track, report and replace defective parts and quickly implement improvements to ensure consumers' safety and preserve Navistar's reputation.

Managers needed to efficiently analyze this warranty and claims data to:

- Spot when claims began increasing or decreasing,
- Identify defective parts that reached the field, and inform users and vendors immediately,
- Consistently review the quality of parts manufactured internally and externally, and
- Analyze vendor contracts against performance.

Preparing the raw data so analysis could begin involved multiple manual steps that consumed an excessive amount of staff members' time. For example, to create just one chart, an employee pulled information from a database, reviewed it and made any necessary corrections, converted the data into a text file, ran it through a specific calculation, and then entered the data into Excel to use its charts-and-graphs function. One chart could consume an hour of an employee's time.

Navistar believes that new ideas, brave inventors and bold thinkers advance the world. So it's not surprising that when management needed its parts and warranty/claims systems to exceed customer expectations, it sought developers who could think boldly and creatively.

THE SOLUTION:

Level Up Development created a Warranty Intensive Analysis Windows application that reads Navistar's warranty- and claims-related data and makes it analysis-ready in minutes. Analysts can easily search and filter the data for all needed statistical analysis, then export the results to various custom and third-party tools for further manipulation and for distribution to internal departments and managers and external vendors and clients.

Similarly, Level Up developed a Parts Analysis web app to address defective parts that reach the field. When a Navistar plant employee enters data on a defective part, the system now routes the data to central office staff, who can immediately schedule reviews before more reach users. Potentially defective parts are grouped, tagged, pulled aside and inspected, with quality issues noted in the system.

Failed parts can be sent from the field to headquarters or to the original suppliers for inspection and determination of why they failed. The system tracks the part at every step in its journey and records all analyses and determinations.

Other applications created by LUD integrate with internal systems to match up claims and returned parts.

This increased availability of data on failing parts means dramatically improved responsiveness. At any time, an appropriate Navistar employee can see where a part is and what's wrong with it, examine photos and detailed test results, and more – and begin making adjustments. And because the applications are integrated with Navistar's internal employee security system, the employees that can act on the data to improve the product have automatic clearance to access this information.

Level Up made sure the applications could integrate with industry-specific analyses designed to predict the reliability of parts.

The end result: increased safety, and indirect savings in efficiency and responsiveness of several million dollars each year.

THE RELATIONSHIP:

Navistar looked for developers with an in-depth knowledge of .net development and usability, specifically from a user-interface perspective. What they found was a development company that brought added value to the relationship.

"We have a lot of contact with Level Up staff and conduct tests as things are developed. You can find out right away if things are going in the right direction or not," said Andy Minter, Senior Business Process Manager. "You also generate ideas that you didn't think of before, which you then can incorporate into the development instead of going back and redoing something later.

"I'd recommend Level Up. They're easy to work with, they can get the job done and they're willing to work with you."