

Hodgdon Consolidates and Streamlines Mission-Critical Databases with Microsoft Power Apps

Hodgdon Powder Company, a leading manufacturer of propellants and reloading products, struggled to maintain outdated database applications for its Hodgdon Load Management System (HLMS) and customer-facing Reloading Data Center (RDC). However, a new Power Apps solution and integrated web pages created by New Dynamic have modernized the HLMS and RDC applications, providing easier and faster updates, improved data accuracy, and an enhanced user experience – for Hodgdon and its customers worldwide.

Every year, hundreds of thousands of rifle, handgun, and shotgun reloaders – those who load their own ammunition – visit Hodgdon Powder Company’s Reloading Data Center to obtain important information on cartridge, gauge, and powder specifications.

The online interactive database, collected from thousands of test firings performed by Hodgdon each year, contains valuable pressure, weight, and velocity information reloaders need for safe and accurate reloading and shooting.

However, updates and maintenance of the underlying legacy database in recent years had become increasingly difficult. Old source code, limited functionality, and third-party management had turned simple updates and web publishing into multi-week projects.

Justin Schrader is a senior ballistician at Hodgdon and manages the test firing and data collection process.

“We had little control over our database and the timeliness of the updates, plus it was a very manual process that added significant risk, stress, and complexity, which was difficult to manage,” Schrader said.

Hodgdon selected New Dynamic to assess needs, define requirements, and develop a solution for modernizing the entire database update and web publishing process. Schrader said the process was thorough and efficient, instilling confidence in the solution.

“The New Dynamic team was impressive from the beginning, asking methodical questions and learning our business,” said Schrader. “They made us feel confident we’d made the right choice and that they understood our goals and objectives.”

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Power Apps Provide Critical Connections Between Lab, Database, and Web Pages

New Dynamic rebuilt the HLMS and RDC applications by creating a model-driven Power App. Internal Hodgdon users now import and update ballistics information directly into the HLMS, which flows automatically and instantly to PHP web pages on Hodgdon's redesigned WordPress website, where the RDC resides and is available to Hodgdon web visitors.

Callahan McIver, ballistics lab manager at Hodgdon, said the new solution is a night-and-day difference in user experience, speed, and accuracy.

"The Power App solution is very efficient in terms of how we're able to work with data and export and import instead of going through line by line and inputting things manually," said McIver. "It has sped up our process tremendously, and now we can trust it's all correct."

The new HLMS Power App and integrated PHP pages have streamlined data entry and management, reducing errors and duplications. Testing firing data also flows directly into the Power App.

Pains & Gains

Pains

- Critical ammunition reload specifications were previously stored in an antiquated and limited database file.
- Updating the database and customer-facing online web app was time-intensive and only accessible by an outside vendor.
- The lack of flexibility caused delays, inaccuracies, and a less-than-desirable customer experience.

Gains

- Hodgdon's new Reloading Data Center, built with Power Apps and integrated PHP web pages, is easily updated and exportable.
- With new flexibility and functionality, Hodgdon saves weeks on RDC updates.
- Hodgdon is providing customers with better research and shopping experiences, which leads to more convenience and sales.

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"Our testing systems can now send test results directly into the database," McIver said. "This is a big deal, considering that we do approximately 20,000 test firings annually, and we no longer have to worry about data entry and accuracy."

The solution also includes integrating BigCommerce and the RDC application, enabling pre-filtering data based on specific parameters like powder type and manufacturer. This provides customers with better research and shopping experiences.

"Reloaders are important customers for us, and this has been a big upgrade for them," said Schrader. "When researching and buying are easier, they tend to buy more often."

Exporting and publishing to outside catalogs is now an instant process rather than a multi-step exercise requiring hours of work. In addition to the workflow and customer experience gains, Schrader said the company has complete control over a critical company asset—and its destiny.

"New Dynamic has helped us protect and enhance the RDC, which is a key selling tool," said Schrader. "That's good for our customers, for us, and the company's overall value." ●

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