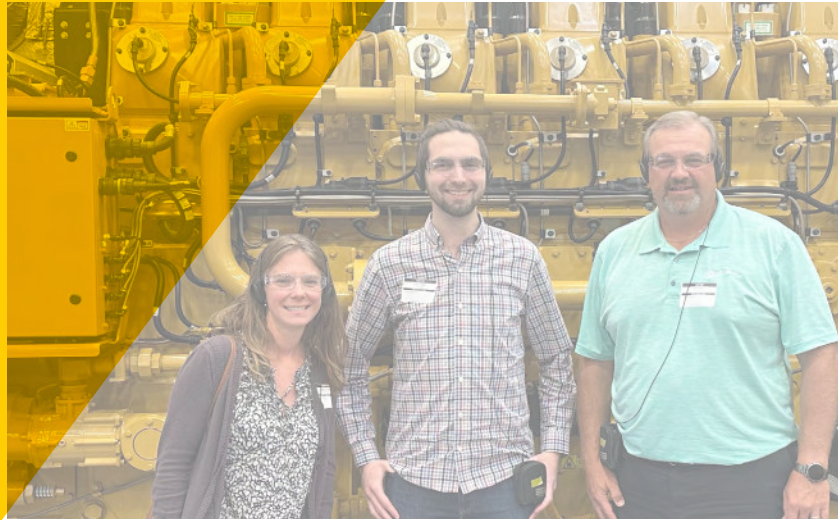


CASE STUDY

Custom Engine Rating Application for Fortune 100 Natural Gas Engine Manufacturer



CHALLENGE

Engineers at a leading engine manufacturer faced a common struggle — managing and distributing complex data sheets containing critical calculations for the sale of natural gas engines in mechanical drive and electric power generation applications to dealers/purchasers doing business on a regional and global basis. This method, used for engine sizing, became unwieldy with multiple engineers updating versions concurrently, leading to inaccuracy and inefficiency.

SOLUTION

CSE Software addressed this challenge by developing a custom engine rating application. The application aimed to store, maintain, update, and display data and calculations, streamlining the engineering and customer process. Following user input, a comprehensive data sheet is generated, providing in-depth insights into engine performance under specific conditions. The application's end-users, including dealers and customers, utilize it to size engines for specific site applications, ensuring the right engine for each customer.

COLLABORATIVE DEVELOPMENT

CSE Software collaborated closely with the manufacturer's engineering team, translating their complex formulas into a user-friendly interface. The data, crucial for engine sizing, remained under the ownership and management of the manufacturer's engineering team.

CSE's capabilities in this application development process included: scope & requirements, development, testing, production delivery, application maintenance, and ongoing help desk support.

KEY FEATURES

- 1 Simplified Data Management:** The application provided a centralized platform for data sheets ensuring consistency across updates and maintenance.
- 2 API Integration:** To enhance functionality, the application seamlessly integrates with external sources, offering engine specific information and associates the engines to the supporting data, such as photos, equipment lists, and performance data.
- 3 Instant Tech Data Sheets:** A standout feature is how the application generates site tech data sheets on the fly. This proved invaluable for field operations, providing instant and accurate results.
- 4 Complex Calculations:** The application executed intricate calculations using gathered data, producing results in various formats, including standard and site ratings.

RESULTS

The custom engine rating application transformed the engine sizing process. The streamlined interface and automation significantly improved efficiency for both engineers and end-users. The generation of instant tech data sheets during field operations represented a notable achievement, by providing real-time solutions during critical operations, enhancing operational agility.