Rich Internet Application assists warehouse management in optimizing performance and reducing costs
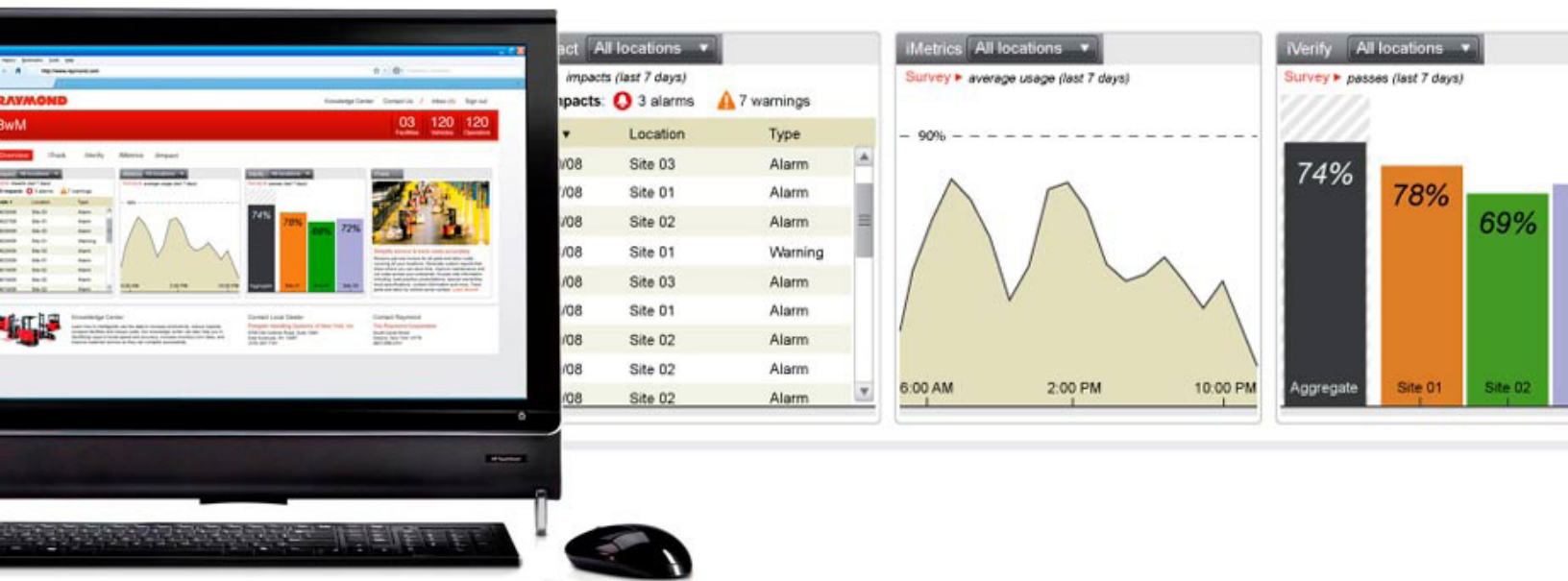
EchoViz develops extensible solution focused on user-experience.

Situation

Warehouse management systems tie warehousing operations together with inventory management, vehicle maintenance logistics, and personnel scheduling and training. Lift trucks (forklifts, pallet jacks, order pickers, side loaders, etc.), have largely remained disconnected from warehouse management tools. The resulting blind spot can have a substantial capital consequence for asset distribution and operational efficiency.

The Raymond Corporation developed the *iWarehouse®* enterprise fleet management solution to integrate this missing link. The application aims to help warehouse managers make use of real-time, networked information gathered wirelessly from lift trucks in order to maximize fleet efficiencies, warehouse organization, operator training, OSHA compliance and vehicle maintenance.

The Raymond Corporation had a tight timeline to deliver the solution to their customers along with the difficulty of determining the best way to structure the application to present the myriad of collected information in a meaningful, actionable manner. They came to

EchoViz to help them meet this challenge.

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Action

EchoViz began with an audit of the existing platform and an exploration of the design limitations, working with Raymond to define application goals and requirements. Employing strategic thinking and best practices, EchoViz determined appropriate methods for analyzing the real-time information and compelling ways to display it. User flows and information architecture established a foundation for the modular and customizable rich internet application design. Through a focus on the user-experience, companies can now gain insight into their operations with ease and choose actionable steps to:

- Increase lift truck operator and service technician productivity.

- Reduce impact risk.

- Set performance goals and track results.

- Benchmark and compare performance of multiple warehouses.

- Optimize lift truck capital and reduce maintenance costs.

EchoViz provided Raymond with an application style guide, graphic design assets and implementation strategy for *iWarehouse®*. In addition, EchoViz created an interactive demo for Raymond to use at tradeshow and marketing events to introduce the system's benefits to current and potential customers.

Result

EchoViz's approach lead to an extensible solution focused on a customizable dashboard and portals accessible anytime, anywhere, ensuring flexibility to meet individual warehouse management needs. Based on permission levels, users can modify how the information and data is displayed. The ability to customize the displays allows users to access timely and pertinent details – from a focus on the big picture to a narrower perspective of particular facilities, vehicles and even individual operators.

Throughout the process of developing *iWarehouse®*, future development possibilities and application extensibility were identified. EchoViz articulated these ideas to Raymond, connecting the ideas back to the organizational structure and content. This documentation created a resource for strategy conversations currently underway.

EchoViz's collaboration with The Raymond Corporation has resulted in a provisional patent for *iWarehouse®*.

About Echo Visualization

Echo Visualization, LLC, (EchoViz) is a boutique interaction design & user experience consultancy with a strong background in industrial design, user-centered design, research, and brand management. We provide a wide spectrum of services including business analysis, digital strategy, user research, information architecture, interactive media, graphic design, data visualization, early stage concepting, interactive prototyping, animation, software development, implementation and QA testing. Throughout our work, we use established design strategies and advanced visualization techniques to engage customers and build brands. We are big thinkers and talented designers who strive to make an emotional connection with users by eliciting desire and delight with the interfaces we design.

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