

Continental Tire



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Challenge: Leverage visibility, data-driven process optimization with no internal IT involvement for large, diverse fleet of over 250 units.

Solution: Yale Vision wireless asset management

Impact: Controlled fleet size and costs, decreased equipment downtime, cut clerical costs by \$120,000 annually and confirmed compliance with pre-operation OSHA checklists

Customer

Continental Tire's expansive Mt. Vernon, Illinois production operation occupies a 60-acre facility and employs a workforce of over 3,000. It primarily serves the North American market, manufacturing a full line of commercial and passenger tires. Nearly 20 years ago, the Mt. Vernon operation began working with Black Equipment, a family-owned Yale® authorized dealer, for lift trucks and fleet service.

In 2003, the relationship deepened when Continental Tire tapped Black Equipment as the exclusive lift truck provider for its Mt. Vernon facility and outsourced all lift truck fleet maintenance to the dealer's

team of technicians – all trained under the Yale ProTech certification program. That maintenance arrangement continues to this day, closely monitoring a large fleet of equipment.

Challenge

Continental Tire needed a technology-based solution to provide greater lift truck fleet visibility and drive process optimization. The telemetry solution needed to address four key areas.

1. OSHA compliance – Replace paper checklists for OSHA-mandated daily inspections with electronic alternatives, and save more than 279,000 pieces of paper per year.

- 2. Operator monitoring** – Match equipment reports with operators to gauge performance and automate reporting.
- 3. Preventive maintenance** – Schedule maintenance based on real-time data, rather than predetermined guidelines, helping create a leaner, more efficient operation with minimal unplanned downtime.
- 4. Equipment utilization** – Automatically track lift truck utilization across the facility's different departments to determine appropriate equipment needs.



In addition to these operational and performance measures, Continental Tire required a solution with a specific technology framework and high level of vendor support. A previous telemetry effort failed to deliver on the promise of data-driven connectivity due to dependence on Continental Tire's IT department – a cumbersome process that hindered site-wide adoption. This time, the company pursued a more streamlined approach with no IT involvement.

Solution

The Yale Vision telemetry solution allowed Continental Tire to leverage their existing relationship with Black Equipment, offering a streamlined process and a familiar partner.

Yale Vision provided a dedicated project management resource to guide solution implementation and provide ongoing support. The tire manufacturer's lift truck fleet is not only the largest installation of Yale Vision to date, it also includes a handful of non-Yale tuggers. The support and ability of Yale Vision to work with virtually any type of mobile warehouse equipment – not just Yale-branded trucks – provided the necessary flexibility for Continental Tire to get exactly what they needed from the solution.

The scale of the Mt. Vernon facility's 24-hour, three-shift operation presented the first customization opportunity. Staffing all of these shifts requires a massive workforce that exceeds the system's default 1,034 operator capacity. To accommodate this volume, the Yale Vision team collaborated with Nathan Baugher, fleet and rolling stock manager for Continental Tire, to produce a custom, dedicated matrix. This provided the necessary capacity to keep track of all the operators, while maintaining the functionality and performance of the Yale Vision portal.

“They’re very knowledgeable about the product and eager to make any changes to accommodate what we want to do with the system.”

– Nathan Baugher, Fleet and Rolling Stock Manager, Continental Tire

Yale Vision can operate on Wi-Fi and cellular networks, including both Global System for Mobiles (GSM) and Code Division Multiple Access (CDMA). The need to avoid reliance on internal IT resources ruled out Wi-Fi, and the location’s lack of GSM cellular coverage meant that Continental Tire required CDMA Yale Vision modules.

The final piece was getting the facility’s different departments up to speed on how to use the solution. This included training management on basic utilization reporting and equipment monitoring, and building operator knowledge. Baugher led the efforts internally, praising the ease with which personnel can access and understand the Yale Vision portal.

“Because the system is web based, getting everyone access was very easy - we didn’t have to install any

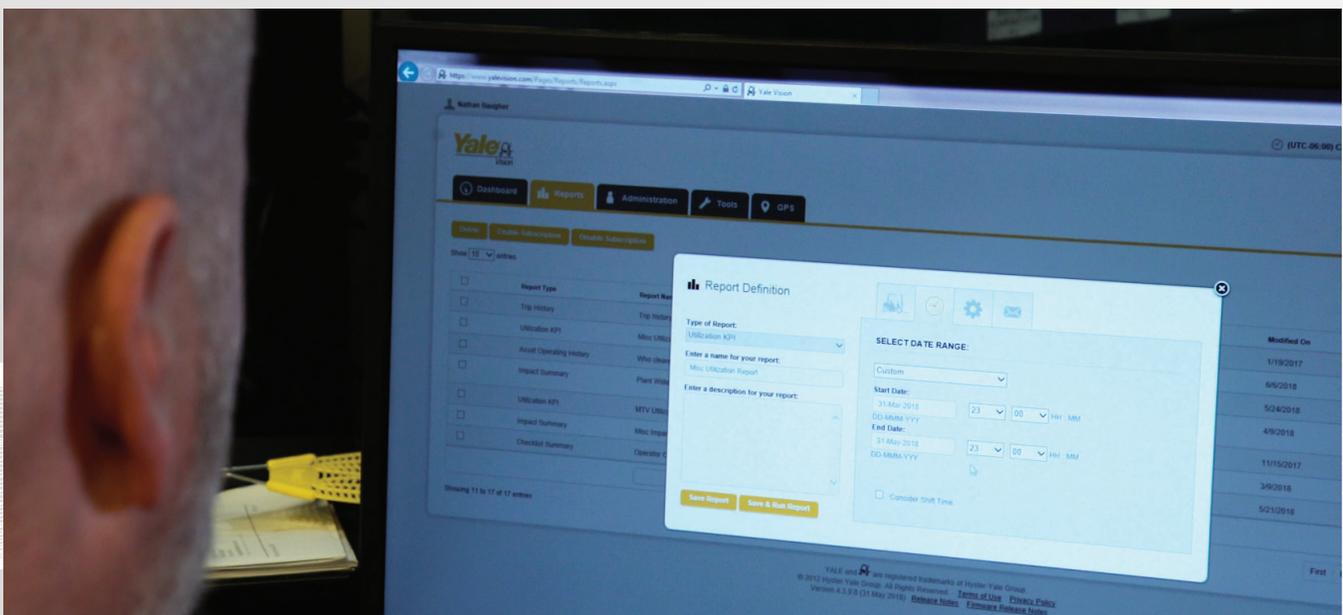
client-side software to the PCs. They can literally access the system anywhere, as long as they have internet access,” says Baugher. “And the active filtering makes looking for specific operators or vehicles easy to do.”

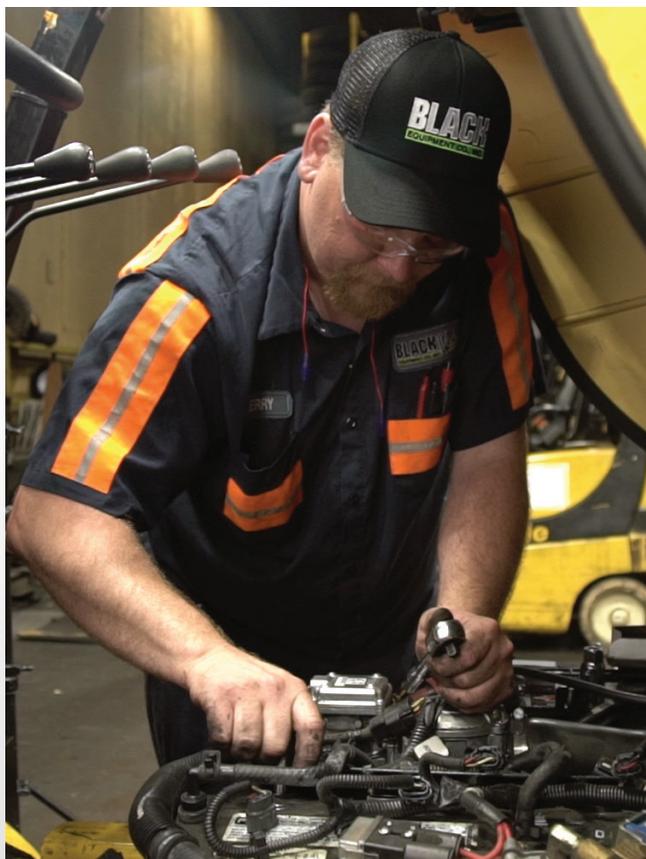
Impact

With the system up and running, Continental Tire started to reap the benefits of a more efficient, visible lift truck fleet. The web portal and automated functions ushered in a leaner, more efficient era, with optimized maintenance, OSHA compliance, equipment utilization and performance monitoring.

Automated Service Calls and Preventive Maintenance Decrease Downtime

The Yale Vision solution for Continental Tire includes fault code monitoring, in which the system sends an automatic alert for proactive service based on real-time equipment status. These alerts go directly to Black Equipment, who dispatches a technician without burdening Continental Tire’s operators or management.





These alerts can prevent minor issues, such as a loss of hydraulic pressure or slight controller damage, from escalating into crippling downtime. Yale Vision also chronicles usage data and equipment wear, and provides a list of parts to address any issues and offer a faster resolution. This made Black Equipment's maintenance even more efficient and effective, with more precise scheduling and better first-pass completion.

Controlled Spending Through Truck Utilization Data

No operation can afford unplanned downtime, and Continental Tire is no different. But this aversion to downtime can take a wasteful turn, with many

operations purchasing unnecessary trucks as a budget-busting buffer against downtime risk. Yale Vision helps avoid these purchases, lease overruns and service by analyzing utilization trends like key time, motion, idle time and more.

As the Mt. Vernon facility implemented new processes and expanded production, analysis of information from Yale Vision proved that Continental Tire did not require any corresponding lift truck fleet expansion. This prevented unnecessary capital expenditures and provided data-driven confidence that the existing fleet was sufficient.

“With the utilization information Yale Vision provides, we were able to prove that new process workloads could be absorbed using our existing fleet.”

– Nathan Baugher, Fleet & Rolling Stock Manager, Continental Tire

In Continental Tire's three-shift, 24-hour rotation, properly allocating lift trucks means no unit can be used in back-to-back shifts. To enable this strategy, Yale Vision provides truck-specific utilization data complete with shift time reporting, and maintains access protocols to ensure operators have the equipment they need.

Improved Safety and Compliance

Yale Vision provides digital checklists incorporated into the interlock of each vehicle. These checklists prompt operators to perform mandatory equipment checks before each shift. This feature ended Continental Tire's reliance on inefficient, outdated paper checklists, delivering significant savings in paper and clerical costs.

Ultimately, close collaboration between Black Equipment, Yale Materials Handling Corporation and Continental Tire proved critical to the success of the project. This effort focused on exactly what Continental Tire needed from the system, matching operational requirements with the capabilities of Yale Vision and providing consistent support.

“Given the sheer size of the operation, it’s important to have champions on both sides so you don’t wind up overwhelmed by more information than you know what to do with,” said Scott Bonnell, president, Black Equipment. “Continental Tire set up the parameters they need for their operation, and Yale Vision provides that custom level of awareness integral to the success of the Mt. Vernon facility.”

Continental completes



225,000

digital checklists annually

Saving



279,000

sheets of paper

And saving



\$120,000

in paper and clerical costs