

FORESTERMAGAZINES

Efficient Use of Time

Maximizing route, maintenance & scheduling efficiency through software

Carol Brzozowski • April 16, 2018



Credit: SmartDrive
SmartDrive camera with driver lights

Arizona Waste and Recycling in Tucson, AZ, runs 14 front load trucks that service 2,000 cans on the ground and 300 rollofs with 21 employees. Owner Kevin Goode sought fleet management software that would enable him to track assets as well as provide other benefits.

Goode has had fleet management software in the past but found there was more paperwork involved than he wanted. He switched to Cro Software Solutions.

As technology moves forward, waste management operators are not only asking for features that help manage assets, but they also want the software to provide diagnostics and location of the assets, notes Dan Klufas, president of Cro Software Solutions.

“They want to have data on those trucks for the drivers and also for the accounting side, managing that in an effective way where the program is doing the work as opposed to the people doing the work,” he says.

Cro’s software can be used by company administrators, dispatch, and drivers. For administration, it provides a live overview, reporting, interactive graphs, user settings, driver data, truck data, location management, and information on deployed and available assets.

For dispatch, the software provides route optimization, route building, real-time GPS tracking, full web interface, yard management, dispatching, scheduling, mapping, reports, prioritizing, and rollovers.

For drivers, the software runs on any smartphone and provides a free mobile interface, alternate destinations, image uploading, live maps, directions, routing, and live data. It is designed to be used by an unlimited number of drivers.

For operator monitoring, Goode integrated Geotab into his operation's trucks, which Cro Software Solutions integrated into their software package so Goode can click into an area and see the location of his trucks.

That goes a long way in mitigating any customer complaints, says Goode, adding that he can take a screenshot to ascertain whether a truck driver indeed missed a service pickup.

Good fleet management software should be cloud-based and should have a mobile app that is customizable to one's operation and simple to use, notes Todd Ewing, director of product management at Verizon Telematics.

"Most of all, a fleet management software should have benefits that outweigh the cost," adds Ewing. "If a business can measurably improve on paperwork and scheduling, fuel consumption, unplanned trips, and more, then it's well worth the investment."

"Fleetmatics REVEAL helps keep drivers compliant with the impending Federal Motor Carrier Safety Administration's Electronic Logging Device," notes Ewing. "Fleetmatics LogBook manages drivers' Hours of Service (HOS) by combining critical data from the vehicle with status updates made in the mobile application by the driver. Drivers simply log into the mobile app and start driving while their HOS are logged automatically."

As management software is becoming more of a necessity for solid waste operations, several components are necessary to leverage it in the current climate.

Those include shop and unit management, repair costs for parts and labor, and productivity tools for measuring shop and employee efficiency, notes Alan Tomlinson, director of key accounts of TMW Systems, adding that eDVIR functionality is becoming standard.

TMW Systems' waste management fleet software is one of several options on the market for solid waste operations. It is designed to work with waste transfer fleets and recycling and garbage trucks to protect uptime.

The fleet management package covers such factors as shop management, parts management, and asset management and warranty claims, notes Tomlinson.

It manages the shop and employees and provides data helping people better manage their fleet and lower their cost per mile or per utilization as needed, he adds.

The software is driven on touchscreen designs to help end-users track hours and job time, pull the correct parts from inventory, and identify warranty claim opportunities.

Shop managers can view resource loads, parts inventory replenishment, and mechanic and overall shop productivity. Executives can view life cycle cost reports.

Noting that waste collection “is a very complex process,” Jason Palmer, president of SmartDrive Systems, says that the video-based safety program is designed to be “highly instrumental from an operations perspective to help keep fleets running efficiently, in addition to operating safely.

“By combining the value of immediate video-based insights with the delivery of transportation intelligence—which transforms massive volumes of data generated by fleets into real-time actionable information combined with predictive analysis and prescriptive actions—waste and recycling fleets are finding that they can achieve significant results for their businesses.”

SmartDrive 360 offers a 360-degree view of the vehicle to assist drivers as they follow standard operating procedures, notes Palmer.

“For improved customer service, captured video can support follow-up conversations with customers on occasions when waste containers are inaccessible due to a locked gate or if another vehicle is blocking the approach,” he adds.

Solid waste operations are integrating their management applications to ensure efficient workflow, notes Jenny Shiner, marketing communications manager, GPS Insight.

“For instance, waste haulers often integrate GPS tracking software with electronic timecards and maintenance software to combine information from all aspects of fleet management into one platform,” she points out.

“When integrating fleet management software, it’s a necessity to ensure all systems are speaking to and supporting one another seamlessly so data is reliable and accessible quickly. Using these integrations helps businesses work more efficiently than ever in today’s technology-driven climate.”

Of the components necessary to get the most from fleet management software, Reza Hemmati, director of product management at Spireon, notes that one is “the ability to know where your drivers and assets are at all times for the purpose of effective routing and time management,” he says.

Spireon recently launched FleetLocate Connected by OnStar in May 2017. It is designed to enable fleets that operate GM vehicles 2015 and newer to leverage all the benefits of effective fleet management without installing an aftermarket telematics device.

DTSYSTEMS’ Sonitrac system is a point-to-point data tracking system that links accounting software, truck RFID tags, portable barcode scanners, and barcoded tickets through use of a handheld scanner. The tracking system is not only used in the

construction industry but, is also applicable in such industries as solid waste, notes its president, Frank Nicotera, who adds that users can view all of the data being collected in real time.

The Web-based system can be owned and controlled by an end user's IT department. DTSystems also offers the technology as an online service so end users pay for the hardware and also pay a monthly fee to access the database and store the data on DTSystems' server, which is backed up through Amazon Web Services.

Sonitrax is different from a GPS system in that an RFID tag goes on every truck. "That truck does not get paid unless it gets scanned, so the incentive for the driver is to make sure that the scan operator is out there to make sure the truck gets scanned in, notes Nicotera.

Considerable fuel cost savings can be derived through better route management, Shiner points out.

"If waste trucks do not take the most efficient routes to job sites or if their routes overlap, it can have a significant effect on fuel economy," she says. "Providing dispatchers visibility of vehicle locations and reviewing historical routes driven can quickly reduce fuel use and increase overall route efficiency."

Aside from understanding where a vehicle is located in each route, company managers wanted to gain deeper insight into servicing their fleet.

Parks & Sons, a family-owned and locally-operated waste and recycling hauler in Sun City, AZ, had previously implemented GPS tracking, but managers sought a solution that provided desired tools and features with a simple interface. GPS Insight allowed company managers to get a bird's-eye view of where their trucks were at any given point and address route inefficiencies through the route replay feature in which dispatchers are able to see the routes for multiple vehicles simultaneously.

Using GPS Insight, "We were able to identify route overlapping with ease—it's all there on a single screen for us to see," says Shawn Parks, business manager. "Making our routes more efficient has never been easier for us."

Parks & Sons leveraged an application custom-built for vehicle maintenance with GPS Insight's designed flexibility to integrate desired data across nearly any platform.

"The data was ours to access and do with it what we want," notes Parks. "That is very important to us as the more information we can exchange between our different software platforms, the more informed we are to make better decisions."

The solution gave dispatch and management full insight into the health of the fleet, knowing at all times the location in the field of their vehicles and knowing which vehicles are currently able to provide service.

Tomlinson says he believes that warranties are one of the largest ROIs when looking at a fleet management software package “other than the sheer management of the shops and maintenance activity.

“ROI can be found with warranty,” he adds. “A dollar retained goes right to the bottom-line and lowers the cost per utilization, whether that’s cost per hour or cost per mile through the use of proper preventative and predictive maintenance.”

An ROI isn’t necessarily derived from using the cheapest parts, but the parts that cost the least per mile, says Tomlinson, adding that the “cheapest tire may not be the cheapest in the long run.”

Being able to collect and analyze information to make better decisions on how to move maintenance to the next level is the importance of maintenance software, says Tomlinson.

Operations with better preventative maintenance programs are able to predict maintenance faults, which is now being accomplished to a great deal with telematics, notes Tomlinson.

Another TMW product, Final Mile, enables waste management companies to better manage dense, complex customer networks while accounting for robust data requirements, notes Brian Larwig, vice president and general manager for analytics and decision support systems at TMW Systems.

Vehicle monitoring technology within Trimble Transportation and Logistics empowers waste operations to accurately service customer needs while providing workflow management tools guaranteeing accuracy as well as insightful and proactive management tools, he says.

“You can’t really report on your costs without a very powerful business intelligence tool,” says Tomlinson. “People are collecting so much data now that they need to see it in a very easy single Key Performance Indicator type of environment where you can quickly change the data to meet what you’re trying to solve or prove.”

Most of today’s software solutions can do route management, running algorithms to find efficient routes, Klufas points out.

In addition to monitoring routes, fleet management software also enables waste operations to derive savings in operator monitoring in that driver monitoring saves money by reducing excessive idling, reducing the number of accidents through safety counseling, “and even reducing insurance premiums by showing you have monitoring in place and a formal driver safety counseling program,” says Hemmati.

Among Cro Software Solutions’ mapping options is the ability to monitor and track drivers via cell phone or tablet as well as integrate with the different hardware devices

that will monitor vehicle maintenance and the precise location of the truck and driver at all times.

The software also has full integration with accounting packages, such as those offered by QuickBooks.

Once a job is completed, the software instantly creates an invoice for the client and manages the operation's entire invoicing and billing side as part of a turnkey approach; this is so waste management operations don't have to invest in several different software packages, notes Klufas.

Maintenance must constantly be at the forefront of fleet management priorities, Shiner points out.

"When it's neglected, it drives unnecessary expenses for businesses," she adds. "In the past, staying up-to-date on preventative maintenance was manual, time-consuming, and lacked accuracy. GPS tracking has made a significant impact on maintenance management by providing an automated process to track services fleetwide and eliminate the financial consequences of past due services."

Additionally, automated maintenance reminders save time by doing away with manual logging of odometer readings and send more accurate information instantly, says Shiner.

Maintenance monitoring allows fleets to reduce downtime and improve fleet performance by getting ahead of scheduled maintenance and address problems before they become serious, says Hemmati, adding that maintenance alerts help fleets proactively maintain a healthy fleet at the lowest possible cost.

"Fleet operations can lead to big cost savings in telematics maintenance by helping reduce vehicle breakdowns by staying on top of vehicle repair and maintenance and decreasing wear and tear on trucks by increasing route efficiency," adds Ewing. **MSW**

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