

Users Weigh In on Scale Technology

By Janis Keating

The waste industry has many weighty concerns; as many of its commercial customers are charged by the weight collected, accurate measures must be taken for precise billings. Even companies that don't charge by weight measure trash input, as this information helps them better manage landfill use. The collection trucks' weight must also be monitored not only because too much or unbalanced weight can cause handling problems for the drivers but also because most municipalities enforce strict weight limits on roads. In addition, adhering to weight limits can lessen a waste company's liability in the event of traffic mishaps; should an overloaded truck be involved in an accident, the possibility for lawsuits - against the company, its clients, and perhaps the municipality - increase dramatically.



A Day in the Life of a Garbage Truck

Robert Garcia of San Diego, CA's Soft-Pak (www.soft-pak.com), which produces software solutions for the waste industry, describes the role weight plays in the typical trash truck's day: "Residential routes pick up approximately 1,000 customers per day; commercial routes, approximately 150 accounts. The typical truck has a capacity of 38 cubic yards of trash, with 3 cubic yards in the hopper area. Per day, trucks usually dump their loads two or three times; this schedule is usually marked or determined by weight load, not volume - although, if the truck is filled with bulky items, it will need to go dump its load as well.

"How does the driver know when it's time? Unfortunately, very few trucks have onboard scales, as to attach anything to a trash truck is difficult, because it takes so much punishment," Garcia goes on. "However, the driver likely knows how heavy the truck gets, as he's probably been running that route for so many years. For example, after the 34th stop, let's say, he knows on any given day, the truck is ready to go to the landfill. Commercial drivers, those with frontloaders, for example, also have the ability to monitor their load by looking out the back window of the vehicle into the hopper area. This allows them to see the compaction system operate and determine when it has reached its compaction limit."

Right Weight, No Wait

Having small onboard computers with one's scale system also allows waste management firms to integrate truck data with billing, productivity, and report-generating software. Each year, customers and government agencies demand more information to bring them in compliance with complex contracts and regulations. San Diego's Soft-Pak software integrates as much, or as little, data, as its customers require.

"We make software for the waste industry, whether private or public," Soft-Pak's Robert Garcia explains. "Our 'i-Pak' helps them manage their business, like planning their routing - whether on hard copy or on an onboard computer. When a driver picks up his truck in the morning, route sheets are in order - all he has to do is follow the list.

"OBCs - onboard computers - replace the need for hard copy route sheets," Garcia goes on. "Our software can also marry the routing feature with GPS [global positioning systems], so the truck 'knows' the longitude and latitude of every customer's container and management will know where all trucks are at all times. Using these two features together also allows the system to raise red flags, or Exception Reports, to let you know if the driver was speeding.



"The software also lets you discover and remedy productivity problems," he continues. "When you leave the yard, you would press the onboard computer's button and it would time-stamp when you left. For the rest of the day, GPS will help date and time-stamp everywhere you go. At the end of the day, all the data will upload to the Soft-Pak system at our customer's location so they can run productivity reports. If there's a problem with a certain route, you can discover if that's due to the fact that the truck was down for mechanical reasons or if the landfill wasn't operating efficiently. For example, let's say the waste management supervisor asks his driver, 'Why is it taking you eight minutes to service Pete's Garage?' The driver might explain that Pete has to move cars away from the dumpster so the trash truck can have access to it. So the waste company can work with the customer to help make the pickups easier: 'Tell Pete to have the dumpster clear of cars on Tuesday.'"

In Austin, Texas Disposal Systems uses Soft-Pak's products on its onboard computers. "Since 1994, we've used route-ware - GPS integrated with Soft-Pak," the company's Rebecca Hilt notes. "We're just trying to keep track of the time it takes to service each route, how long it takes at each stop, and any traffic problems that might interfere with our routes. Drivers have a button to push after they pick up each stop's containers, so we see the time elapsed. As far as I know, the drivers like the computers; they have always had to record their time, so now they're recording as they go, instead of having to do a lot of paperwork. The time stamping lets us monitor traffic patterns: Has the traffic gotten heavier in a certain part of town? Does it take trucks longer to get from point A to point B? If so, we can work with solutions, like running the route backward, to avoid traffic tie-ups at a certain time of day."

Soft-Pak plays an important role in many of Texas Disposal's procedures. "We only bill on volume, not weight, for both residential and commercial customers," Hilt says. "However, our landfill operation also has large customers, like the City of Austin; we weigh their trucks in and out, so we can charge by tonnage. We've used Soft-Pak's Scale Pak for three months now, which integrates these weight reports with our billing process. This saves a lot of time, and the accuracy is better - no keypunch errors."

Designed as a complete information management system, Soft-Pak's i-Pak can be utilized by all sizes of commercial and residential waste management companies; along with its many functions, the system has multilingual capability. Depending on a company's need, various extra modules, such as "sales management," "scale house management," "vehicle management," and "variable reporting," can be added to the software package. The i-Pak products integrate with Microsoft Office products, graphical mapping, route optimization, A/R collection, wireless computing for in-vehicle communications, invoice and statement outsourcing, financial and accounting packages, Lock-Box interfaces, and many other products. The software's RouteSmart Technologies offers computerized map-based route analysis and optimization systems, which allow users to improve the collection efficiency of their fleets. The i-Pak standard system also integrates dispatching, billing customer service, container tracking, accounts receivable, and more.

"Our pre-implementation and conversion process helps the customers move their data from their existing system to their new Soft-Pak software solution," Garcia explains. "We have been doing this for 29 years, so we can convert almost every different software package for business out there. However, since most people like their existing Accounts Payable/General ledger software, we found it best to interface with all the accounting software products on the market."

For small operations and/or startup companies, Soft-Pak offers "e-Pak," an Internet solution that delivers all of i-Pak's functionality in a real-time, online environment. No hardware or software investments are required, just one low monthly fee.

"Our software also works on recycling trucks; we do manage recycling as a commodity, as it's sold to a buyer. Other customers use our software for medical waste pickup, for portable toilet companies, and we even have a few customers in the street-sweeping industry," Soft-Pak's Garcia says. "Our software includes all the information about a company's fleet, and with the onboard computers, users can add a device that's attached to the truck's engine, which lets them know the vehicle's 'vital signs,' whether they're behind the wheel or behind a computer monitor back at the office.

"The concept of onboard computers is attractive to many in the industry," Garcia concludes. "They're not really expensive but not cheap; onboard computers are not a solution for everybody. However, Soft-Pak is unique in that we upgrade/enhance our software about every year, after asking our customers what they think needs improving. Everyone from a one-truck operation to some of the largest haulers in the country weigh in with ideas and recommendations. As our customers' needs change, they look to us to keep up with those needs."