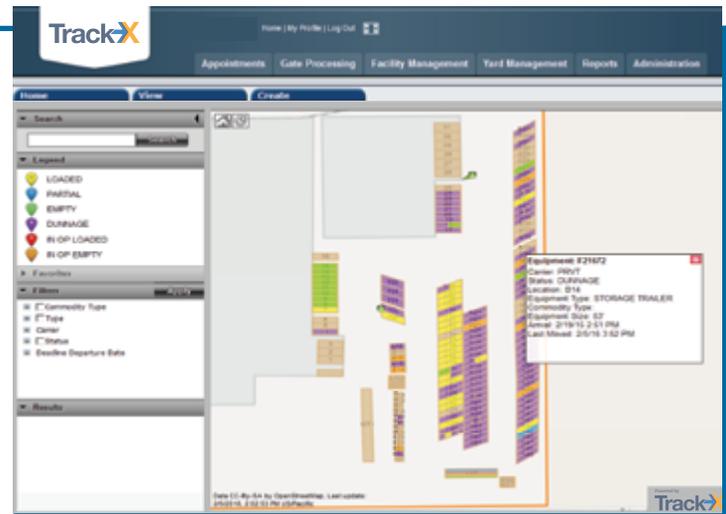




Maximizing Yard Management:

How a Flexible RFID YMS Can Optimize Operations and Cut Costs

In a lot of ways a trailer yard at a distribution or production facility is a lot like your backyard: it doesn't always get a lot of attention compared to what's inside the four walls, but if you invest some resources in it, it can provide significant value to the entire property. TrackX's Yard solution marries radio frequency identification ("RFID") and global positioning system ("GPS") technologies with the most advanced business rules and processes to automate workflow and events across yard operations, such as the gate/guard shack, shipping & logistics department, yard jockey (i.e. switcher, hostler, spotter, shunt, etc.), dock doors and more. This merging of technologies, coupled with TrackX's cloud-based software, offers real-time location visibility and management of yard assets (e.g. trailers, etc.) and operations at a cost that can typically achieve an return on investment ("ROI") in 12 months or less. TrackX's yard management system ("YMS") benefits include:



- Real-time visibility and locating capability that monitors all yard assets and their status
- Automatic identification of equipment entering and exiting the gate, and throughout the yard
- Communication between the yard server, yard jockey, guard shack and all other yard components and users including handheld devices like smartphones and PDAs
- Integration into existing systems (e.g. warehouse management systems, transportation management systems) for extended visibility
- Multiple hosting options for easy expandability and deployment to additional sites



TrackX's robust, advanced yard management solution also includes valuable yard functionality specific to the areas of the yard where value can most easily be realized, eliminating wasteful practices like drives throughout the yard to find a trailer or inventory all trailers, flipping through stacks of paper for trailer details, multiple radio calls to the yard jockey to confirm a move has been completed, or numerous calls to find out if a carrier has arrived. All of these inefficiencies and more are eliminated through TrackX's optimized processes.

- **Carrier Scheduling:** Tracks appointment times allowing both you and carriers to view and monitor performance.
- **Gate Management:** Provides ability to easily process equipment arrivals and departures. If carrier appointments are created, the arriving equipment can be associated to the appointment.
- **Shipping & Logistics:** Gives dispatchers/traffickers visibility of trailers and equipment, allowing them to assign tasks to drivers, and monitor trailer moves and dock door usage.
- **Yard Jockey:** Provides real-time communication/task assignment to yard jockeys throughout the yard, and monitors their location and performance.
- **Dock Doors:** Offers visibility to trailers at each dock door, as well as provides tools to track door productivity. Integrates with dock door systems for seamless load management.
- **Yard Visibility:** Shares comprehensive, real-time information and reports between users throughout the company, as well as carriers and other parties, for complete yard visibility through an easily-deployed, web-based application.

A comprehensive yard management solution such as TrackX Yard places valuable, intelligent information at your fingertips – and the fingertips of any user within the organization – in order to quicken processes, optimize asset / trailer usage, more efficiently manage labor and resources, and help managers make better, more effective business decisions, allowing them to start seeing value immediately and pay for the solution in as little as 8-12 months.



Savings Opportunities

The savings calculations below are taken from TrackX's real customer examples. Specific companies' work calendars/schedules, pay rates, and process times may differ, but similar benefits should still be considered.

CARRIER DETENTION

Savings Opportunity: TrackX Yard can assist in reducing or eliminating carrier detention charges. Based on the specific contracts with carriers, detention charges can be significant to an operation that does not have proactive visibility to the equipment in their yard.

Solution: Real-time visibility to the trailers in the yard including dwell time, the amount of time until the trailer goes into a detention status, and the amount of time it has been in detention. Also, proactive alerts notifying key personnel of the trailers approaching or already in detention.

Example: Assume a \$25 per day for a detention charge, an average of 200 trailers in the yard daily of which 15% of them are in a detention status. This equates to approximately 30 trailers per day in a detention status or a detention charge of \$750 per day. Through the better and more proactive notifications enabled by the YMS, the facility may receive a 50% reduction in detention trailers, equaling 15 trailers or \$325 daily.

VALUE – *The elimination of nearly 4,000 detention days per year (15 trailers per day * 5 days * 52 weeks) is a savings of almost \$100,000 a year.*

EQUIPMENT & MATERIAL LOCATING and TRACKING

Savings Opportunity: An unfortunate amount of time and labor is spent performing "material tracking" functions, whether for necessary yard checks / inventory, or wasteful and timely trailer searches.

Solution: TrackX's yard solution automatically records information about the yard during all the managed processes. For example, yard checks are done automatically as a yard jockey drives through the yard performing tasks. This, in turn, verifies and/or updates equipment location (as well as the commodities or loads that are associated with the trailer). Therefore, information that was so difficult to obtain previously can now be instantly accessed through the YMS.

Example: Employee wages and benefits may top \$20 an hour, so a reduction in material tracking labor could provide significant value. Since total yard visibility is automatically collected and provided through the solution without adding any time to addition processes, then a 90% reduction in material tracking time is well within reason. This could eliminate around 35 hours a week in wasteful work.

VALUE – *A reduction in 35 hours per week of labor for a period of 52 weeks is over 1,800 hours a year. At \$20 per hour, that's a savings of around \$35,000 yearly.*



REDUCTION OF A YARD JOCKEY UNIT

Savings Opportunity: Yards sometimes have to use multiple yard jockeys to support trailer movement and management because there are few, if any, processes in place to provide effective visibility to yard drivers or report jockey productivity to managers, which creates an ideal circumstance for inefficiencies to occur. Additionally, ineffective yard layouts that occur due to lack of trailer visibility and organization also get in the way of a driver's productivity.

Solution: Providing real-time, accurate trailer visibility and organized task assignments to drivers allows them to be much more effective in the yard, as does a more organized trailer layout which can be enabled by better yard visibility and control. Jockey productivity reports also allow managers to better schedule and oversee labor.

Example: The optimization of the yard and more efficient management of yard jockeys and drivers could eliminate nearly 8 total hours of jockey usage per day at a cost of about \$20 per hour in various costs including fuel, maintenance, etc.

VALUE – *Saving about 2,600 hours a year (50 hours weekly * 52 weeks) where the tractor is not running reduces costs by more than \$52,000 yearly.*

SOFT SAVINGS

Many important benefits for yard employees aren't figured out on a calculator and analyzed on a spreadsheet. In fact, everyday users, whether at the gate house, yard jockey, shipping desk, or operations office, find some of the following "soft benefits" to be the most appreciated in their daily duties.

Real-time, accurate visibility to what trailers have been processed at the gate and all the associated information including arrival time, trailer location, load information, status and more. Reduction in yard traffic due to minimized trailer searches.

Better communication with carriers that provides more streamlined operations, quicker shipments, carrier performance reports, and an optimized yard. Cycle times (the time between when a task is created and completed) for turning dock doors and performing moves may improve by 75%. Analytical reports that give managers and other users the yard productivity information that should be at their fingertips on a daily basis.

- Automated tracking of the yard jockeys and drivers, with data on miles drive, tasks per hour/shift, and more
- Daily trailer arrival and departure reports
- Information on trailer dwell times and trailers approaching (or in) detention
- Loads completed per day / week / etc
- Enhanced gate processing, trailer updating and real-time information sharing
- Visibility to commodities in the yard to reduce "production down events"
- Reduction of over-ordering due to inventory being in the yard, but not visible
- Improved communication between different departments

