Yard Management
Case Study

Efficiently Managing Container Returns

The purpose of this case study is to provide an example of a non-traditional benefit of a YMS implementation by focusing specifically on efficiencies gained in the management of empty container returns to port.

Inspired by our experience with a retailer, we will explain the challenges that are commonly faced by large volume sites and will also address how our software can also benefit sites with fewer containers (<10).

The Challenges

1. Container detention fees

The drayage carrier allows for a certain number of free days (FTX or Free Time Expiration) for the company to unload and return the container to port, otherwise penalties are charged (rates vary according to the owner and port).

This retailer often exceeded that free time window because of a lack of warehouse capacity (labor, space, equipment) and poor yard planning. It also would happen that drayage drivers would leave site bobtail because the empties weren't ready (incurring a bobtail fee). Furthermore, due to a cumbersome management of the returns, human error and carelessness would allow for the wrong container to be assigned.

2. Administrative labor costs

The logistics team needs to track the arrival of the full containers, including the container number, the owner, the number of free days, the detention rate, port of origin, etc. For this specific retailer, who receives about 50 containers per day (with +/- 300 containers in yard), managing the Excel list represents about 4 hours of labor per day. This labor intensive Excel process was prone **to mistakes and provided limited visibility to all the actors.**

Once the containers are unloaded, a list of empties, in order of priority return, was created and passed on to the gate guard so that they may assign the proper empty container to the drayage carrier driver when the drivers arrive on site delivering full containers.

3. Yard space restrictions

Yard space is often taken for granted. Speak to operators and they'll confirm that a packed yard impacts overall capacity and productivity.

Drayage drivers were showing up and the empty container wasn't ready for pick up; thus, the driver left empty. **This lack of visibility and preparation contributes to site overflow.** Therefore, proper visibility and process efficiency in your container collection will have a ripple effect that will also minimize drayage drivers returning empty handed.

The Results

[1] Shunter drivers also referred to as, a) yard drivers, b) yard goats, c) spotters, d) yard dog, etc.

1. Auto-assignment of empty returns

Applying the same drop & hook concept commonly used in a YMS, that is providing the drayage driver upon check-in the appropriate pickup assignment, C3's YMS can easily assign the right empty return based on the owner and destination. Typically, a YMS will take into consideration the age of the container, but this retailer challenged us to consider the FTX and detention rate.

2. Ranking based on the FTX and detention rate

The retailer collaborated with us by integrating the detention rate (varies according to owner and port) and the FTX in order to obtain an overall priority ranking. This new priority ranking became the new return assignment rule.

3. The new check-in process

Drivers checking in are now being assigned their pickup assignment systematically based on the new assignment rule.

The **new priority ranking** gives site managers visibility on which containers should be emptied in priority. Consequently, the chance of having drayage drivers return bobtail has been **significantly reduced**.

The new process now looks like this:

1. The drayage driver checks-in.

2. The information required was either submitted in advance or entered manually upon arrival.

3. The YMS recommends an empty container and indicates its location to the driver.

4. The driver drops the full container in the designated area or spot and picks up the empty container in the indicated spot.

5. Upon departure, a final inspection is done, and the driver returns to the port.

How to apply this principle with smaller volume yards?

If your site receives 5 to 20 containers per day, then you might not need the full YMS for your operations

We recommend using our dock scheduling platform C3 Reservations, which can give you visibility on dropped trailers and containers that are ready to be returned. In this case, we put aside the automation and simply add the appropriate fields in the appointment layout. By having visibility on the "return by" date, we create dashboards, filters and reports that give users the visibility they need.

C3 Reservations workflows are configurable and can **trigger email notifications**. In this case, we commonly add the "Empty" status once the appointment is finished unloading. This status not only provides visibility between when it is finished unloading and departed, but it triggers an email notification to the carrier in addition to providing a status update on their portal.

The reports will show when the carrier was notified to come and pick up the empty and as well when they did do the pick-up.
Full visibility, no ambiguity.

Conclusion

This retail customer definitely leverages the best out of our YMS and scheduling software systems.
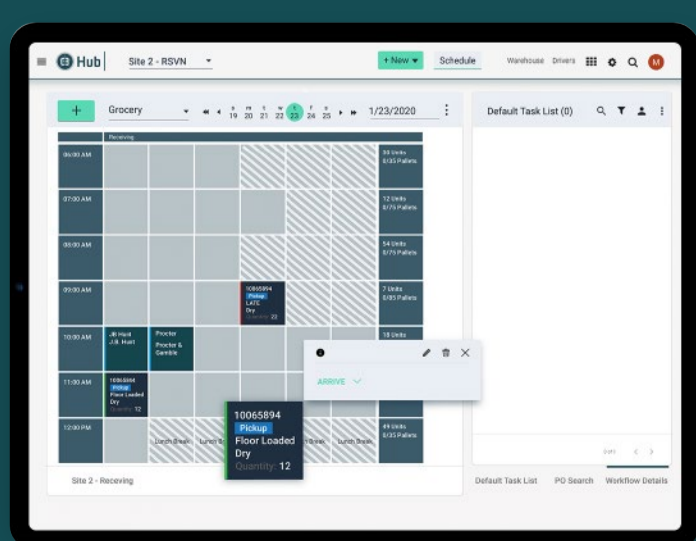
Their management of empty container collection is a good example. The entire ranking process and assignment is done automatically, saving hours of work, and eliminating another Excel spreadsheet!

Another great testimonial on how a systematic process improvement combined with visibility will significantly reduce detention fees and related administrative costs.

Book a demo now!