



C3 Solutions



Dock Scheduling
and the
Retail Industry

Opportunities for your Supply Chain



About the Authors

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Gregory Braun is co-founder of C3 Solutions and is responsible for the marketing and sales department. Greg has over 22 years of experience in the transportation industry of which the last 13 have been focused on yard and dock management.

This expertise has been a valuable asset to open new markets for C3's products over the years. Greg is not only working at increasing the customer base but also upholds good business relationships with existing customers who are the key to C3's success.

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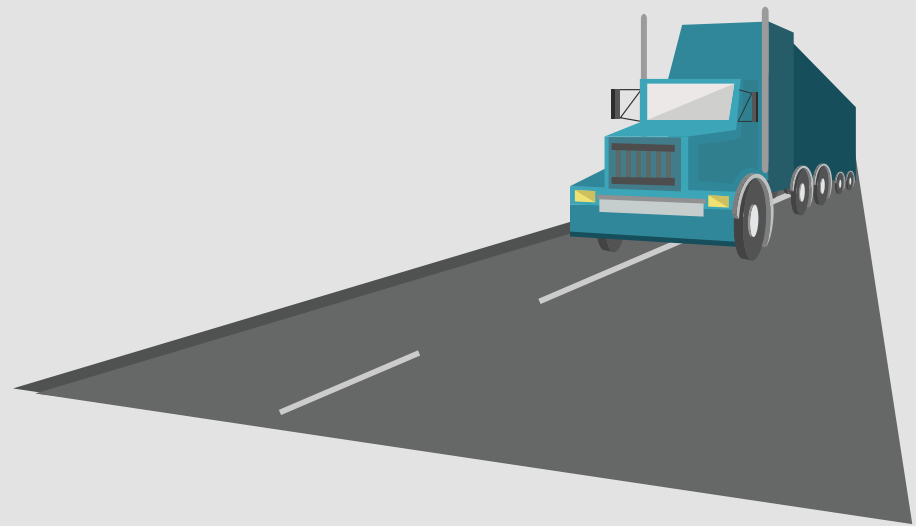
François focuses on promoting C3 Reservations internationally and developing a strong business relationship with our customers.

With his entire career being in customer service and business development, including 18 years spent in distribution and manufacturing environments, François brings to C3 Solutions valuable insight into these segments.



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Introduction

It is referred to by different names; **dock scheduling**, **appointment scheduling**, **bookings**, or **time slotting** – yet retailers worldwide share similar challenges related to planning loads in and out of their warehouses.

The purpose of this eBook is to provide valuable insights which retailers may relate to, whether they perform traditional inbound scheduling to a distribution center, inbound to stores or outbound pick-ups.

We hope readers will find these true stories informative and will inspire them to continue improving their planning and scheduling.





Solutions For the Retail Industry

In this eBook, you'll find brief solutions to real problems as well as full-length case studies.

Find out how an automated dock scheduling system solves the scheduling madness in the retail industry.

- ★ The Challenge for Those Who Are Already Scheduling
- ★ The Challenge of Managing the Store Deliveries
- ★ The Challenge of Receiving Audits and Scorecarding
- ★ The Challenge of Automating Years of Experience

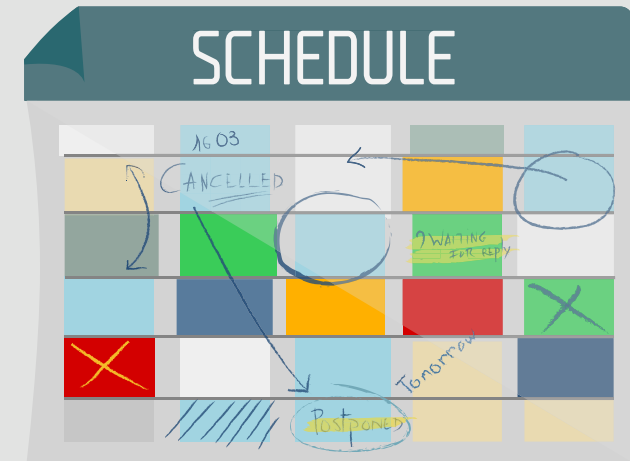
THE CHALLENGE FOR THOSE WHO ARE ALREADY SCHEDULING

THE CHALLENGE

Retailers were among the early adopters of a dock appointment scheduling process; enforcing a disciplined schedule.

The challenge is that most have not modernized their process in decades beyond replacing the phone calls with emails and paper calendars with spreadsheets.

With the incessant pressure on reducing supply chain costs, warehouses are looking to reduce the labour hours spent on scheduling, obtain better visibility via KPIs, as well as improving reporting for on time arrivals and unloading duration in order to make their receiving and shipping operations more efficient.



THE SOLUTION

A web based dock scheduling solution allows the users to replicate their traditional schedule and systematize their informal business processes. Appointment requests may be executed via the external portals, eliminating nearly all the phone calls and emails. Since all the communications are channeled through the scheduling tool, the application can easily capture the time stamps for all the events.

From management's perspective, they now have the reporting tools to ensure that the planned schedule is executed efficiently.

THE CHALLENGE OF MANAGING THE STORE DELIVERIES



THE CHALLENGE

Retailers' store deliveries are often a mixture of DC and direct store deliveries. Due to the limited number of doors and restricted receiving floor space, store operations need to schedule inbound loads. Since not all the appointments are standing or recurring appointments, they also need to manage the unplanned appointments or run the risk of creating congestion in the receiving area. In the specific case of a big box retailer, managing the phone calls and paper calendar was an unproductive burden to the skeleton receiving staff.

When the suppliers and carriers called into the receiving office, often the lone attendee would be busy on other tasks (receiving, counting, etc.), forcing one of two events to follow:

- a) they would interrupt what they were doing to answer to call and write down the appointment information,
- b) let the person leave a message and contact them later to confirm the appointment.

THE SOLUTION

Each store has the capability of customizing their receiving schedule, setting restrictions on the vendor types and quantities throughout the shifts and reserving time slots for standing and recurring appointments. Instead of calling in the appointment requests, the suppliers and carriers now use the online portal and select the available time slots (available times are based on the business rules set in place). This new process eliminates the incessant phone calls - to the greatest satisfaction of the receiving team, as well as the carriers and suppliers. The receiving team consults their computer screen for a daily list of pending appointments, confirms the arrival and departure times and periodically addresses special requests which fall in their task list.

It has been estimated by management that each store has saved one hour of labor per shift by implementing the new process. Managers appreciate the online visibility of the dock activities throughout their store operations, providing them with accurate and instantaneous reports and dashboards.

THE CHALLENGE OF RECEIVING AUDITS AND SCORECARDING

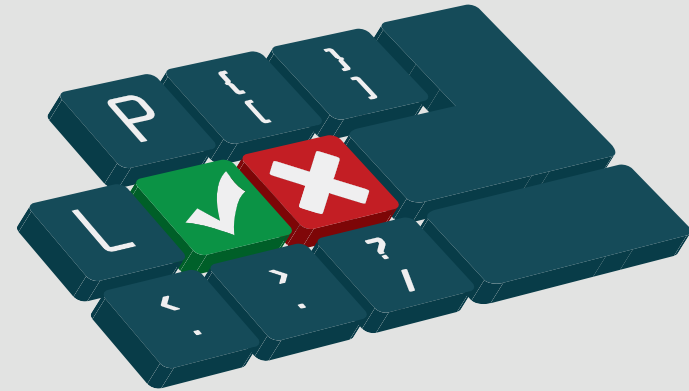
THE CHALLENGE

If you require your unloading personnel to conduct a receiving audit on a standard form, then you recognize the challenge of compiling, reporting and potentially scorecarding the data.

In this particular instance, the retailer's store operations was faxing the completed paper form to the transportation department, who in turn manually transcribed the results in a spreadsheet which was then emailed to management.

In addition to the numerous labor hours required to collect and compile the data, they regrettably only had a 10% - 15% return rate of the forms.

The process was labor intensive, incomplete at best and cumbersome to share.



THE SOLUTION

In its basic state, a dock scheduling solution captures data relative to the timeliness of the shipments. For example, the events may include the estimated delivery date, requested times, arrival, unloading and departure times. One vendor's solution offers a unique compliance module which captures the faults related to non-scheduling issues. Although it is intended to track product damage, incorrect paperwork and so forth, this retailer decided to audit its own trailers inbound from the distribution center for safety and security concerns. Each trailer is audited in regards to how it was loaded, the weight distribution and the overall cleanliness of the trailer.

Although they chose not to make the audit forms mandatory, the return rate improved and reached approximately 70%. The transportation team is extremely satisfied by the completion rate and the ease at which they can query and report the data.

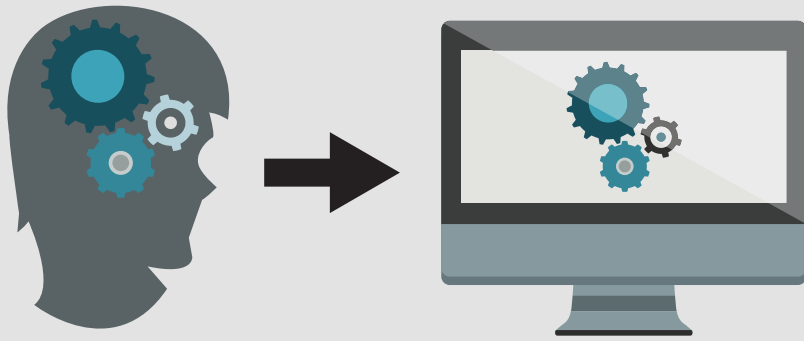
Now they have reliable data in order to make serious business decisions and implement continuous improvement initiatives.

THE CHALLENGE OF AUTOMATING YEARS OF EXPERIENCE

THE CHALLENGE

Schedulers using the traditional means of phone calls, emails and calendars to maximize the product through flow and dock capacity have developed a unique skill set. They understand their business priorities and schedule based on their knowledge of load types, door groups, unload duration, vendors and carriers, and many more parameters.

To help visualize the importance of these various rules and constraints, imagine that one retailer's policies were contained in a 3" (75mm) wide binder. Despite the business' eagerness to automate the scheduling process and to have the appointment requests made online and automatically confirmed, the challenge remains to find a solution which can address each retailer's specific business rules, however complex, while remaining easy for the schedulers to deploy and manage.



THE SOLUTION

The strength of the planning and rule engine driving the schedule resides in the ability to use various standard and custom fields with business rules which are composed in plain English – no programming required. Not limited to a standard calendar format, these rules and constraints can be applied to sites, warehouses, door groups, shifts, days, time slices and time slots. In the case of a drugstore retailer, the scheduling system estimates the time to unload based on information found in specific fields such as load types, number of line items, quantities, vendor groups, etc.

In addition, by comparing the appointment booking time with the actual arrival and departure times, a scheduler can review and improve the plan – taking the guess work out of dock scheduling.



Case Studies from our Retail Customers

The complexity of the retail supply chain provides opportunities for great improvement.

- ★ Synchronizing Dock Operations with Purchasing
- ★ Scheduling Direct Store Deliveries
- ★ Pairing Best Technologies with Best Practices
- ★ Connecting the Dots with SAP Data Integration
- ★ Automating the Centralized Appointment Desk

★ Case Studies from our Retail Customers

SYNCHRONIZING DOCK OPERATIONS WITH PURCHASING

This retail grocer manages 12 distribution centers serving over 2,800 stores. After a rigorous RFP process, C3 Reservations was selected based on its broad range of features, integration capabilities with the WMS and its comprehensive reporting.

THE CHALLENGE

This retail grocer managed its 10,000 appointment requests per month spread over 12 DCs, from a centralized bookings desk with a combination of paper forms and data entry into its WMS system. The challenges were numerous but the main concerns can be summarized as:

- ★ Managing a call center that received hundreds of calls per day from suppliers requesting appointments.
- ★ Maintaining a manual (paper binder) schedule for each warehouse. Several appointment clerks shared each binder.
- ★ Time consuming data entry of each appointment into the WMS system.
- ★ Inability to predict unload times and overall appointment capacity.
- ★ Buyers were not able to get updates on PO delivery status and subsequently purchased more products than required.

THE RESULTS

- ✓ **Via integration**, C3 Reservations receives PO information from the WMS in order to speed up the completion of the appointment request. Likewise, once confirmed, the appointment times are then sent back to the WMS, liberating the staff from having to enter the data manually.
- ✓ **Suppliers and carriers request appointments online.** The portal being available 24/7, these supply chain partners no longer need to call into the appointment desk, their appointments are confirmed automatically, and all communications are automated between the portals or via system generated email confirmations.
- ✓ **DC screens are updated in real-time** as changes arise and receivers are able to track arrival times (and no shows), add comments and compliance information right in the appointment screen.

This is another great example of how C3 Reservations positively affects areas of the retail business that go beyond the initial project objectives, including enhanced relationships with the supply chain partners due to a faster and more precise process.

★ Case Studies from our Retail Customers

SCHEDULING DIRECT STORE DELIVERIES

A major North American retailer unburdens its store receiving team from phone calls, manual appointment books and paper audit forms with cloud based automation.

THE CHALLENGE

This retailer required a dock appointment scheduling system to replace the manual logs used for stores deliveries, provide real time information and metrics to the customer service department and to streamline the scheduling process by providing a single web portal to all vendors and carriers for appointment booking.

THE RESULTS

After a pilot project involving a handful of stores, the application was rolled out to all the remaining stores in a very impressive timeframe. Within a week, all the stores' receiving teams had switched from their paper appointment logs to the online schedules, with the expected benefit that practically 100% of the phone calls were eliminated.

Just as impressive was the response from carriers and vendors, who only after two weeks, 72% were on board and that number reached 96% after a month. This comes as no surprise as the vendors and carriers saw the benefits and time savings for their businesses too. In the past, an army of customer service representatives (CSRs) were calling the stores directly to request appointments, confirm arrival and change times. With online scheduling, no more waiting on hold, no more voicemails and no more miscommunications. They can now manage their appointments at any time and receive email confirmations for every event.

The implementation of C3 Reservations also brought along a standardized process for the deliveries originating from the distribution centers. CSRs now have a convenient tool to plan, communicate and track their store deliveries from loading to receiving. What was once a tedious process involving spreadsheets, phone calls and faxes is now streamlined.

- ✓ Routing changes are communicated more efficiently.
- ✓ Electronic manifests are attached to each appointment and visible to all parties.
- ✓ Arrival and departure times are recorded in real time allowing for better trailer tracking.
- ✓ Load quality audits are filled out online and compiled for compliance reporting.

The project team is dedicated to continuously improving its store operations and, to that end, continues to work with C3 to ensure that the solution is used at its full potential, especially with regards to the vendor compliance and its reporting features.

“C3 Reservations came out as the best solution on the market for us. Not only did it allow us to streamline our overall appointment management process but we now have the KPIs we need to measure and improve our performance.”

- Senior Manager
Domestic Transportation Operations

★ Case Studies from our Retail Customers

PAIRING BEST TECHNOLOGIES WITH BEST PRACTICES

This European retail grocer, with 840 stores in its main market, came to C3 Solutions with the desire to modernize the outdated technology and user interface they were using for scheduling appointments to their facilities. In an impressively short two month period, the implementation team successfully revamped the system and processes in place; from the online carrier/supplier portal to the application tools used in the gate/receiving offices to manage staging areas and door assignments, complete with purchase order integration.

THE CHALLENGE

Scheduling practices are particularly complicated in the retail grocery world due to the numerous exceptions and rules which govern a scheduler's decision for booking load dates and times.

Despite having a scheduling application already in place, this grocer still required much manual effort to reorganize and adjust their schedules, day after day. This was due to the fact that their system was merely automating the communication aspect of the process, without optimizing their scheduling - which was more or less done in a "first request, first booked" basis.

With their growing business and warehouse automation projects, this was no longer viable.

THE RESULTS

The planning capabilities of C3 Reservations truly shone due to its uniquely powerful rule engine, allowing for planning extensive rules, constraints, and priorities – eliminating much of the manual intervention required in the scheduling process. Due to the complexity associated with having a highly automated warehouse (palletizer, automatic inspection and placement of product), many parameters needed to be considered in building schedules:

- ✓ precise unloading times
- ✓ load prioritization
- ✓ door allocations
- ✓ self-replenishment agreements with vendors
- ✓ fresh and fast moving items
- ✓ expected delivery dates validation
- ✓ automated standing appointment times expiration

This implementation is a success story as it combined C3 Reservations with industry best practices, providing its business and supply chain partners a truly automated "lights-out" distribution center.

★ Case Studies from our Retail Customers

CONNECTING THE DOTS WITH SAP DATA INTEGRATION

A retailer boasting over 800 stores and 4 distribution centers (DC) wasn't satisfied with the appointment scheduling module residing in their warehouse management system (WMS). The project team came to C3 Solutions for assistance in order to resolve some very labor intensive processes and to improve the visibility on their dock activity. C3 Reservations was successfully implemented shortly after to complement SAP by optimizing the appointment and receiving process.

THE CHALLENGE

- ★ The appointment requests were all managed by email, requiring a dedicated team of schedulers to manage the schedules for 5 facilities.
- ★ To fulfill their contractual obligations, schedulers had to respond to appointment request within 24 hours. This constraint forced them to maintain a time consuming email tracking process that was still error prone.
- ★ The manual schedule was built around restrictive door constraints. These door assignments were of course no longer relevant at the time of the actual arrival but it was the only way to visualize the receiving capacity.

THE RESULTS

- ✓ Suppliers now request appointments through a self-served web portal accessible 24/7. Every request that fits within the schedule and constraints is automatically processed without any scheduler intervention.
- ✓ Most of the appointment requests are now automatically approved, allowing for immediate confirmation via automated emails. The C3 Reservations' business portal also provides a task list alerting the scheduling team of any exceptions so they can be dealt with in a timely manner.
- ✓ Appointment times are now made available to suppliers based on the true warehouse capacity and constraints (i.e. quantity, load type, product, etc.) leaving the door assignments to the arrival process, where it becomes truly relevant.

★ Case Studies from our Retail Customers

CONNECTING THE DOTS WITH SAP DATA INTEGRATION

(...continuing from page 11)

THE CHALLENGE

- ★ Because the scheduling was done in a system where each PO had to be appointed separately, consolidation loads took considerably longer to process.
- ★ Processing trailer arrivals at the gate was a multi-step and cumbersome process: The gate guard had to capture appointment arrival information on paper, proceed to door assignment by contacting the warehouse via radio and then manually record the arrival information in SAP.
- ★ Reconciling non-compliance information recorded against shipments in SAP and any appointment related issues was a manual and tedious process.

THE RESULTS

- ✓ Suppliers can now consolidate loads in one easy step when requesting appointments. PO booking status updates are then sent to SAP via web service integration, thus providing real time visibility to all users.
- ✓ The complete trailer arrival process can now be done using C3 Reservations. The appointment information can be retrieved and updated by gate guards via a mobile device, thus requiring minimum manual data input and radio communications. These real time updates dramatically speed up the process and contribute to reducing driver detention fees.
- ✓ Using C3 Reservations' compliance module, faults can easily be recorded on appointments as well as shipments, providing immediate visibility and reporting on the complete realm of non-compliance issues.

★ Case Studies from our Retail Customers

AUTOMATING THE CENTRALIZED APPOINTMENT DESK

Among the top 10 North American food retailers, this retail giant's logistics operation includes 20 distribution centers which receive **50,000 appointments per month**. These appointments were managed by a team of schedulers that received emails and updated dedicated spreadsheets for each warehouse; clearly a tedious process that was a bottleneck to their expected growth.

THE CHALLENGE

Schedulers were burdened with many different challenges, which included:

- ★ Sorting and filing overwhelmingly large quantities of email appointment requests from carriers and suppliers.
- ★ Waiting for updated PO feeds to validate quantities and due times.
- ★ Struggling to successfully fit backhauls into the DC schedules.
- ★ Juggling DC capacity and unique operational constraints (compiled in huge instruction binders).
- ★ Being the single point of contact for all receiving inquiries between carriers, suppliers, buyers and DC operations.

The combination of these points made inbound planning/receiving very labor intensive, inefficient and a bottleneck for future growth.

THE RESULTS

- ✓ C3 Reservations reduced labor affected to scheduling by more than 60% in the first year.
- ✓ Suppliers use the self-serve portal to request appointments and buyers have access to PO status.
- ✓ Appointment information and total pallet counts are available in real-time (vs. waiting for a report once or twice daily).
- ✓ Integrating purchase order information into C3 Reservations meant that there was no need for copy/pasting and duplicate data entry. Pallet counts, the principal measure of volume, were automatically measured hourly, by shift, by commodity per DC (great for labor planning).
- ✓ Visibility in real-time was now accessible to all the DCs via their own online portal.
- ✓ As for backhaul management, POs are flagged automatically through data integration (from the grocer's ERP) and are managed by each site; eliminating another set of unique spreadsheets and hoards of emails.



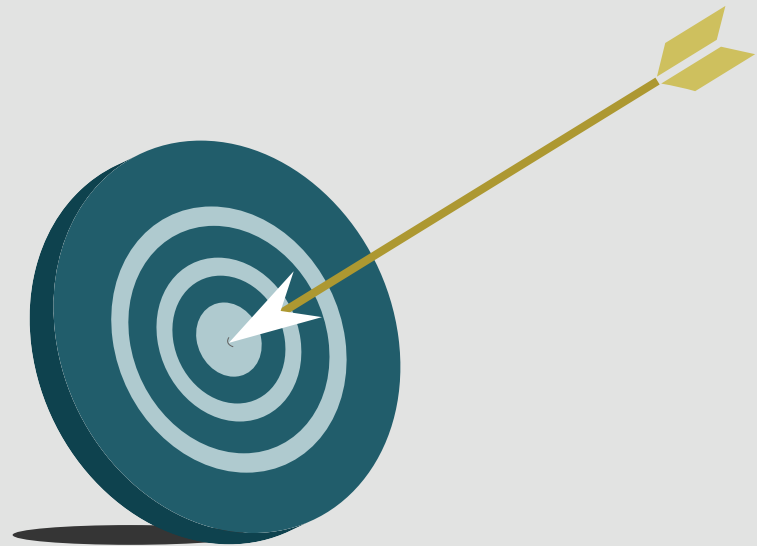
Why do Retailers Choose C3 Reservations?

It's all about performance. As a stand-alone application, C3 Reservations shines due to its extensive rule engine and planning capabilities while remaining simple to use. When integrating data with other information systems using methods such as Web Service calls, C3 Reservations even enhances the performance of existing supply chain systems.

Effective communication and increased visibility for internal and external users combined with dashboards, reports, compliance auditing and scorecarding, allow retailers to benefit by reducing the labor hours spent scheduling and improve the flow through of trucks to their docks.

Contact us for a live demonstration and see for yourself why retailers around the world have entrusted their dock scheduling operations to **C3 Reservations**.

[REQUEST A LIVE DEMO](#)





About C3 Solutions

C3 Solutions is a leading provider of software solutions dedicated to the area of **yard management** and **dock scheduling**.

C3's customers are fortune 1000 companies in the retail, manufacturing, transportation and post and parcel industries. C3's products include its award winning yard management software, Yard Smart and its on-demand dock scheduling system - C3 Reservations.

Founded in 2000 and based in Montreal QC, C3 Solutions has customers in the United States, Canada and Europe.

For more information on C3's products, schedule a **free online demonstration**:



VISIT OUR WEBSITE

www.c3solutions.com

