



Process Driven Solutions

The Plan

XXXX as a World Class Distributor

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Executive Summary

Title 2 Business Services has been actively engaged at XXXXXXXX for several months. In that time, we were tasked with getting the DC shipping product on time and developing processes to keep the DC running through the 2019 Spring Season. This evolved into conducting a physical inventory to clean up a badly damaged locator.

During our tenure, we have developed some thoughts on a plan to bring XXXXXXXX to a dominating position as a distributor of product in their market, stated simply as lifestyle branded apparel and accessories.

We know the value of a brand. We also know the cost of damaging a brand with poor execution. Our plan is designed to give XXXXXXXX a roadmap to get from current state to market leader.

The world is changing from B2B to DTC. XXXXXXXX has embraced that change from a sales perspective, but has not fully developed the processes and tools at the DC or with electronic systems to support low density, fast turn, high return rate orders.

We think there is immediate value in the plan we are proposing. Not only does this plan bring value in the near-term by protecting XXXXXXXX's market position, it brings long-term value by adding a service level that very few companies enjoy. Not only will driving this change at the DC add value there, it will drive value in other functions as XXXXXXXX's mid- and senior-level groups begin to work together to service customers holistically.

XXXXXXX Distribution Change Objectives

Instead of discussing the current state, path, and future state, we think a cleaner approach to this communication is to break out the major groups of issues to address. We will then explain what needs to be addressed, and how. We can then build a timeline for that change to maximize the initial impact.

It must be noted, however, that most of these items build upon each other. This yields a curve of impact that is strong in the beginning and at the end. The risk is that decisions in the middle are made to forego the remaining tasks by not seeing the interdependency of all the pieces. The final state is a system. To enjoy the benefits, the system must be whole and healthy.

WMS/ERP Improvements

Full Circle's WMS is an incomplete solution. It is obvious from looking at the backend that the solution is not nearly as capable as the planned solution. When asked about several functions, the response was that the functionality was planned, but that the client that was funding the development backed out before completion.

We suggest looking at a more robust bolt-on WMS. This is assuming no appetite exists for changing FFFFFFFF ERP. There are many good options available in a range of price points.

Before a WMS can be chosen, critical functionality must be decided upon. We believe that the Software selection goes hand-in-hand with the layout decisions. Both of these activities depend upon the strategic path the business chooses. Changing physical layout or software systems is extremely stressful on an organization. While we believe both are critical for XXXXXX's future growth and profitability, you do not want to undergo these changes every few years.

Replenishment Calculation Replenishment is the most basic WMS function. Without a process to bring product to a pick face, the pick face must be sized to all, or substantially all, of the backstock for a product.

The interim solution is to continue with the offline replenishment method we currently use. It is being greatly improved with accurate, located inventory. This will work as-is for the Spring 2019 season. However, if no change to WMS is made, we will need to develop a more robust software solution to accommodate replenishment.

Item Assignment FFFFFFFF has no item assignment functionality. The WMS looks for inventory wherever it exists. This allows for inventory randomization, or requires offline, manual mapping

to know where to put away inventory or where to replenish to. XXXXXXXX doesn't have the tools necessary to do either without brute force.

Over time, errors accumulate. With Item Assignment, transactions are auditable and self-cleaning. At any time, reporting or work can be generated to show and correct misplaced inventory. While transaction discipline is required (more on that later) , subsequent transactions to an assigned location will "find" mis-transacted inventory.

Most importantly, assigning locations allows for the generation of work to static locations and the management of flex locations. Work creation is critical to managing the activity of the DC and generating the minimum turn times required to be world class.

We have assigned item locations for all A, B and C items (and some D items) as determined by Sxxxx Rxxx. These items will also use flex locations when needed but will have pick faces with inventory always available.

The interim solutions we have developed will begin to use these locations to direct put away and calculate replenishment. However, beyond Spring 2019, a WMS upgrade or more robust tools will be necessary to maintain the DC and to grow XXXXXXXX.

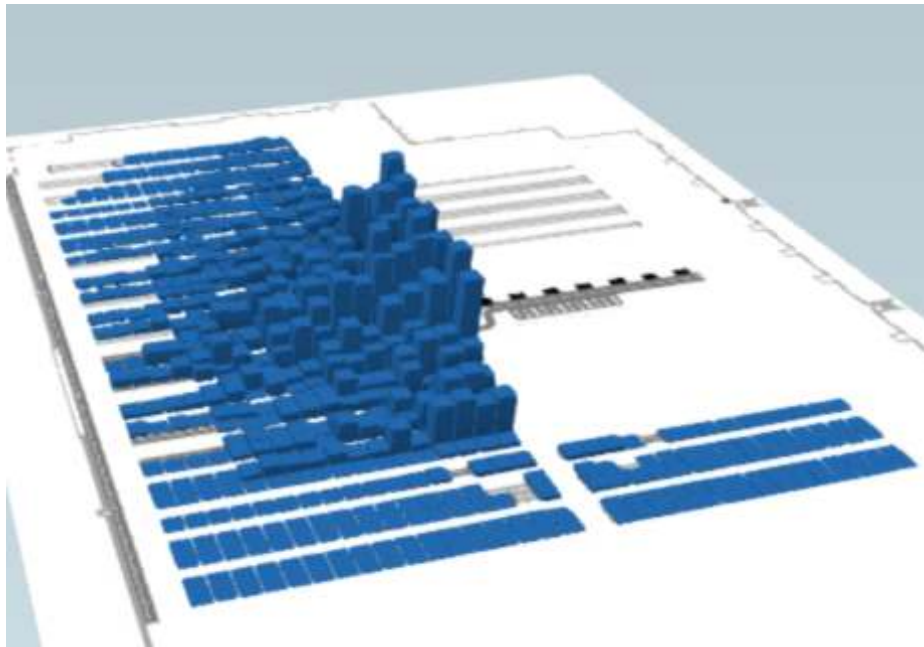


Figure 1 New item locations are assigned outside WMS in a way that forces FFFFFFFF to generate a better pick path.

Capacity Planning FFFFFFFF WMS has no capacity planning module. We suggest any function of a business know the drivers and consumers of capacity. In the XXXXXXXX DC, the primary consumer of capacity is distance. It's unit of measure is picks. The multiplier of those picks is

density. Simply stated, if we know the number of picks, the density, and the distance required to get to stock, we know capacity.

We can further simplify those buckets. Distance can be impacted for case quantities by dropping case picks close to shipping. We can also impact distance by reducing the walk for all picks, especially those items that pick most often. We just did that with the pick face reset. However, resets are not short-term solutions.

Density is determined by our customer. The impact we can make on pick density is only manageable long-term by focusing on customers with particular buying preferences (DTC is low density, wholesale store direct is a little higher, wholesale DC shipments are highest).

Knowing our demand in these terms allows us to change the levers of capacity and to add an adequate amount of capacity.

We are now measuring demand in pieces, picks, and distance. We are driving down the distance and removing non-pick related activity from pickers. Capacity is improving per picker, and we are monitoring picker headcount more closely. We need to either add these tools to our WMS or develop stand alone tools to supplement the WMS.



Figure 2 Offline capacity planning model used in the 2019 model.

Work Creation Work creation refers to the generation of individual work instructions used by pickers, replenishment drivers, shipping employees, etc. Work creation takes demand (the sales order of pick ticket) and makes a supply instruction to meet that demand. These are discreet

instructions in the system that can be assigned to workers in various roles and scheduled in time to allow for future work to depend on other work.

Currently, we cannot pick unless we know the replenishment is complete to supply the pick face with the product to meet the pick demand. We see that by watching the inventory of product. If there are multiple lines of demand, we cannot see what demand has been met through replenishment. Multiple pick tickets needing a single UPC will all try to claim the same product. If these all need other items to be replenished, the first ticket to grab one item may be the last to get another product not on the competing pick tickets. We may have hundreds of tickets on hold awaiting various product. But we may have most of the tickets' demand met if we just moved the picked product to the tickets that we could complete. Work lets us do this systematically.

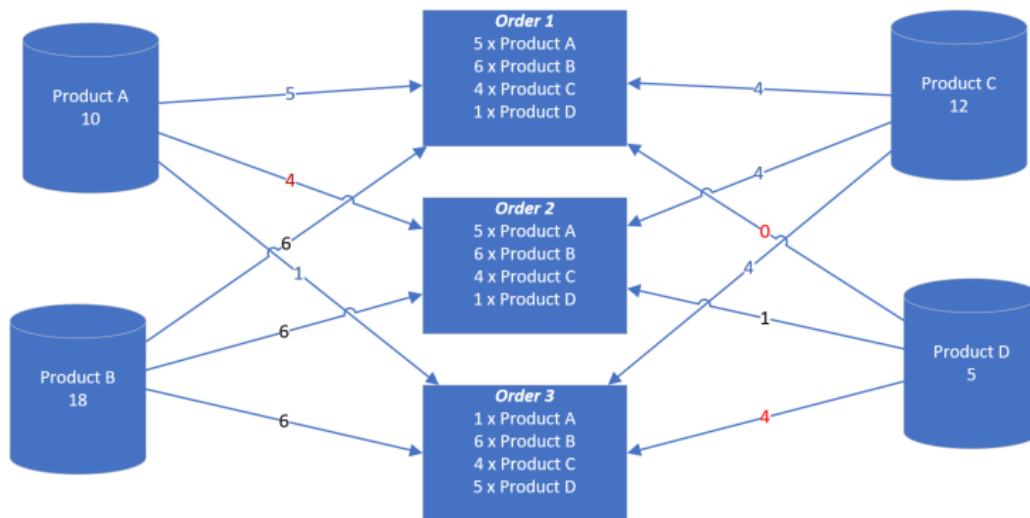


Figure 3 By not waiting on replenishment, Order 3 grabbed a unit of Product A and a unit of Product B that were intended for Orders 1 and 2.. Now all three go to resolution, quadrupling time in pick for all three. By releasing picks upon completion of replenishment work, we prevent this common occurrence.

Work Assignment Assigning work allows us to measure completion of tasks by operator assigned to that work, accuracy of their execution, and their speed. Takt boards presenting this data are a phenomenal motivator to improve speed and accuracy.

Once work creation and work assignment are possible, we can drop a group of pick tickets to the DC and have them executed based on our determined order of execution. If a new pick ticket drops that is required immediately, that ticket will be the next assigned to a replenishment order, if needed, then to the next picker that finishes a pick ticket. The start time of that pick is almost immediate. The queue of work to be accomplished at replenishment and picking is real time. As work drops in, the queue continuously reorders based on the priority of work.

Practically speaking, each B2BCustomer1 or CLIENTWEB order that drops will be the first tickets executed when the current ticket each picker is on is complete. If replenishment is needed to pick a particular order, that will be the next replenishment work done when the current line is complete. This can happen without any intervention at all.

We strongly advocate the separation of plan creation from plan execution. Generating work and measuring results allows for more discrete analysis of plan creation versus plan execution. If we are not improving or performing at a rate expected, knowing if the failure is poor planning or poor execution helps us determine the solution.

We cannot create work or assign work in XX/WMS. There is no provision for either. While pick tickets can be assigned to pickers, there is no benefit in XX/WMS to do so. None of the tools or analytic functions exist. Additionally, there is no benefit to the picker, like the work queue, or to management, like worker effectiveness.

Short term, we can now generate work offline. This is not as robust as on-the-fly generation. Completion is surmised from monitoring inventory levels, etc. But we have the benefit of allocation-like transactions to know when picks can be released to the floor.

We strongly advise on a long-term solution that is work-based.

124/125 PACK001 1388794-001		PACK002		PACK003		PACK004		PACK005
112/112 PACK006 **FLUSH** 1246447-001	69/69 PACK007 **FLUSH** 1390048-001		PACK008	81/86 PACK009 1205842-001	59/68 PACK010 1389188-001			
264/272 PACK011 1246178-001	55/59 PACK012 1233851-001	256/272 PACK013 **EMPTY CARTONS** 1246140-001	140/141 PACK014 1246767-001	376/378 PACK015 1198467-001				
291/302 PACK016 1389305-001	302/306 PACK017 1205226-001	0/0 PACK018 **FLUSH** 1203084-001	119/124 PACK019 1390047-001					

Figure 4 While we cannot yet pre-assign work, we are able to attach a pick tickets to the picker that started it. We can monitor their work to finish work they have started. This example is the new packaging station traffic board.

Improved RF Functionality The XX/WMS RF functionality is very limited. In particular, we need the ability to “NOSTOCK” an item, the ability to complete transfers at the carton level without having to scan individual contents (for exploding cartons into pick faces) , the ability to generate or destroy inventory for limited inventory users (or the ability to transfer out of a LST-FND location inventory that can go negative) . There needs to be an inventory management set of tools that reside on RF that are easy to use.

Add Zone Picking and Pick and Pass Functions Well designed WMS allows for alternate picking methods when they make sense. Zone Picking and Pick and Pass Picking allow pickers to stay in their zones or rows and pass product on to the next zone to be picked by the next operator. This reduces time-to-complete and walk time. A picker picks the part of an order that is in his/her zone and passes to the next zone for that picker to do the same. The order then moves through the DC until complete. No picker needs to leave the zone to complete an order. While this is not intended for small quantity DTC-type orders, it works well with distribution to wholesale customers with larger orders that cover a lot of pick area.

Another functionality that most WMS will support is the separation of a pick ticket into planned cartons, with each carton becoming a set of work. Pickers each pick their area and the product meets up at the packaging or shipping areas. This method simplifies the entire operation by making all pick tickets (each subset of product on the pick ticket from ERP looks like a separate ticket to WMS, but is still a single pick ticket in ERP) small, 1 – 12 piece tickets. They all pick similarly and if a ticket is being picked by multiple pickers, it’s time to complete is about the same as a 1-12 unit ticket.

There is little opportunity to replicate this functionality in the short term. It would require a change to the most fundamental parts of FFFFFF/WMS. The level of custom coding would be cost and time prohibitive. However, this capability or the ability to add this functionality would be a highly ranked want in a new WMS.

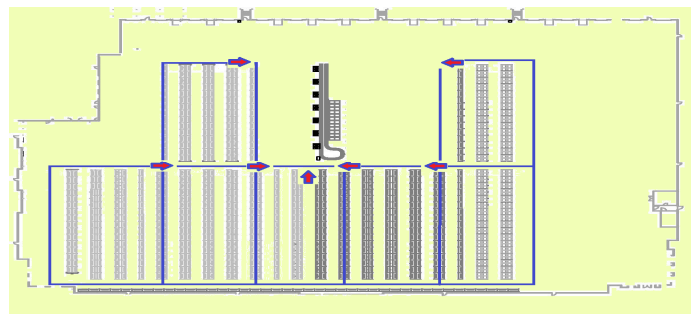


Figure 5 Zone picking and pick & pass keep pickers in the aisles.

Add Basic Analytics Most modern WMS platforms have highly developed analytics. Since XX/WMS doesn't track most of the key data necessary to support detailed analysis, we have begun to track that data outside the WMS. While FFFFFFFF runs on an archaic, proprietary database, we have begun collecting data in MS-SQL. This data collection is being used primarily for driving functionality outside XX/WMS. A major piece is analytics.

Most WMS platforms have this basic data reporting. In the short-term, we are using tools developed to substitute. If a WMS upgrade is not planned, we suggest building a more robust data collection routine to help support the new DC management tools and provide management with key metrics to run the DC.

Functional Process Development

Today's online sale and DTC distribution model can yield higher average sales price, but also has higher costs. Those can more than offset the better revenue if a company isn't prepared.

Returns XXXXXXXX needs to revamp the returns process at the DC. The current process is set up more for large end-of-season guaranteed sale returns than for "buy 3 pairs and return the 2 that don't fit."

While processing returns through the credit stage currently seems passable, the grading of returns and the back to stock stages are failing. The RTS inventory at the DC went from a pallet to a few dozen in just over a month. The WMS side of that transaction is painful.

One solution is to decouple the processes of generating the credit for the return, grading product, and returning to stock. The thought is that a customer that returns product should have a credit processed within 24 hours. Grading should take place within a few days, depending on volume. And the RTS process should ensure no more than a week's worth of product is in queue to RTS.

XX/WMS changes may be required. We would rather create a controlled RTS process that adds inventory after grading and cleaning than the current process that writes on "good" inventory and requires another step to write it back off. Long term, the process flow we develop here will survive any decision to replace or enhance the current WMS.

Replenishment XX/WMS has the barest essentials of replenishment. In XXXXXXXX's world, the current replenishment module is unacceptable. The transaction volume of picking versus the timing of replenishment is a major problem. XXXXXXXX needs to be working toward a continuous replenishment and continuous picking model, well beyond waves. XX/WMS hasn't evolved as far as waves.

Currently, we are replenishing through the Backlog Manager and ODM, tools developed for XXXXXXXX to determine pick ticket priority, required replenishment, and at-once ticket status. Long-term, this tool needs to be replaced with functionality intrinsic to the WMS.

Shipping/Invoicing Best practice for invoicing is to trigger the invoice at shipment (for terms customers).

Currently, XX/WMS is not working well with our shipping companies. We ship in XX/WMS, then ship again on UPS WorldShip, etc. Auto Invoicing seems to be hit-or-miss. Customer satisfaction

and revenue are both at risk, making this a major problem. Additionally, we are printing tracking information, affixing to the pick ticket, and filing away “just in case.”

Short-term, we need to dedicate resources to getting FFFFFF/WMS and UPS/FedEx/Whoever Else talking to each other. Invoicing shouldn’t be an action, it should be an outcome. World Class distribution setups don’t leave this to the hopes that an interface works. The interface should work before the package can ship.

Slotting Simply stated, slotting reflects our understanding of the value of real estate. Historically, XXXXXXXX has slotted by category, style, color, size. It was necessary to put all the sandals together so that the picker could use a somewhat common box for sandals. Then we put the men’s shoes together because they used a somewhat common box. And so on. If we decouple picking from packing, common box has no value in slotting. Slotting becomes a function of reducing picker walk time. We put the highest movers close to shipping. We must ensure we don’t put them all together in a row as congestion becomes a problem. But we can put them on the central rows with a density that shortens walk distance without creating “hot spots” of activity, where congestion creates dwell in pick time and replenishment time.

We can also separate out case picks and replenish them according to demand. Reducing piece replenishment demand and exploiting the yields of case picks, close to packaging, is an easy solution to get capacity up and streamline standard picking to more of a DTC model.

By calculating pick face size through an algorithm that minimizes walk time and maximizes replenishment density, we get the most time efficient layout. We transfer activity from low density picking (under 2 units per pick on average) to high density replenishment (12 or more units per replenishment) . If someone needs to go to the far reaches of the warehouse, we want it to be replenishment getting full cases, not pickers getting one or two units.

Short term, we have calculated pick faces and laid them out with modeling from prior year movement adjusted for inventory category codes (dead or dying product is given only flex pick faces on the periphery) . This should happen because products are recategorized. It should happen through the normal course of generating work instructions.

Long term, this needs to be developed into a process that continually resets pick faces based on product movement. Instead of doing a reset once or twice per year, the flex/static model will allow for continual pick face reallocation. The reset will happen naturally through dynamic reassignment of pick faces over time. As waning product depletes from a prime pick face, it will be replenished to a new flex pick face as needed, but not to the static pick face. Once a

predefined lower level of inventory across the Style/Color spread is hit, a small cleanout will grab the remaining few UPCs and move them to flex locations. A new, higher velocity item can be put in those pick faces.

Dating and Prioritizing Work Currently, there are dozens of emails each day communicating that pick tickets have dropped for one account or another. There are lots of notes back and forth to make sure this ticket or that ships today. The constant reprioritization of work is a monumental task in itself.

This comes from a time when pick tickets were printed when they dropped and were managed manually in piles. We have removed the immediate printing and piles, but have not resolved the prioritization of pick tickets.

Our mission should be to ship everything as soon as we hit the ship window. And if we have a spike in orders, we need to ship everything as soon in the ship cycle as possible without compromising same day ship orders or short ship window orders. Managing this by ticket or customer is too resource consuming. Modern WMS implementations use the system to manage the order of work based on priority and dates.

For any work prioritization to operate properly, priority and dates must be accurate. We advocate a single algorithm for determining the order of work. That prioritization can be overridden by a limited number of people so that an emergency can be handled without getting off script.

Short term, we are using the Backlog Manager tool which allows us to manage tickets by priority. Long term, this tool should be part of the WMS. XX/WMS doesn't have this functionality now. There are priority and date fields, but they are not such that we can get them to conform to a normal usage of either. Given that many start and cancel dates are from inbound EDI and we don't want to change them, we have started to develop the "Ex-DC" date. This is for internal use only and marks the target ship date. It considers routing requirements, etc. to set the date we need to have product on the dock to leave.

Physical Layout Improvements

Given the recent investment in a new distribution center, we want to keep the physical layout changes to a minimum. We think we can get the bulk of the improvements we need without major expense. We suggest some long-term changes that will greatly increase XXXXXX's capacity in the same building with some capital investment in the future.

Pallet Flow/Push Back Racks Given the desire to have orders complete and ready to ship on start date, XXXXXX does a fair amount of pack and hold. Push Back racks are a great tool to use when trying to maximize floor space and orders are packed several days before shipping. The storage density of outbound pallets in push back racks is about four times that of pallets on the floor. As noted in the DC Handoff section, going vertical in shipping allows us to go 5-high on pack and hold. Without pushbacks, we can access these pallets as we do today. With pushbacks, we can reduce the number of aisles from 1 for every pallet depth to one for every 3-5 pallets deep, depending on the depth of the pushback.

Case Flow Racks The pallet pick locations in Aisles 1 through 3 are similar to case flow racking. The concept is to replenish cases to demand in a specific area near the packing area. Instead of spreading the locations by using full pallet storage, we would replenish from backstock to a case pick area.

While XX/WMS doesn't pick this way, we think that short-term, we can by-pass with a simple process change. Long term, we want the ability to break pick tickets into work that can be spread by pick type. We send regular pickers to get less than case quantities and the cases come through case flow.

Add Gravity Flow Racks Gravity flow racks are great tools for picking distributions to stores from a large order. They also work great for picking pre-packs. A half dozen pickers can put together tens of thousands of pieces in a day on repetitive orders. Gravity flow racks are generally wheeled shelving on standard racking that are fed from the back and picked from the front.

We cannot easily see the activity of XXXXXX to determine the quantity of DC built prepicks. We have seen several large distro orders come through that can use this type of pick setup. Putting together the order data for these will determine the size area needed and the payback.

Future Forward Pick Module The pick area of the XXXXXX DC is almost the entire DC. The square footage of the pick area is 99,200 square feet. This represents over 1.2 billion pick feet to pick the UPCs in 2018 volume from the initial layout. That sort of pick area requires a tremendous

amount of walking for each picker as about 80% of a typical open warehouse picker's time is spent walking.

A forward pick module cuts walk time to whatever we design. An example for XXXXXXXX would be to convert the front half of the expansion area to a single level pick module with the intent to mezzanine later. A rough draft shows we could fit 5400 pick faces on a single level and allow for separated pick and replenishment aisles. Continual replenishment and continual picking could be implemented, with pickers and replenishment employees never crossing paths. With pick and pass, no picker would ever walk more than 170 feet for a pick (versus the current 350 feet) . We should be able to pick our current volume with 20 pickers and 4 replenishment runners. This setup would allow for significant expansion by adding volume or brands. By expanding the pick module to the entire expansion area and adding a mezzanine, we could manage up to eighteen thousand active UPCs (we consider XXXXXXXX to have around 3400 active UPCs today), and another ten thousand SKUs that are in closeout.

Our backstock area could hold an additional eleven hundred pallets of backstock (close to 220,000 units) by just reconfiguring the existing racks to pallet storage instead of pick faces. Another 200,000 pieces of inventory could be fit into three additional sets of racks where the oversized packaging area exists today.

With automated priority sorting, an emergency pick ticket could be dropped and ready to ship in minutes if the product is in pick faces. It should be ready to ship within an hour if it requires replenishment.

This is certainly a long-term aspiration. Most of the other improvements in this document need to be completed before this would work.

Leadership Growth Opportunities

With the addition of the new DC manager, we will forego any individual assessment of members of the leadership team. He needs time to observe and form his own opinion of his staff. Our comments are general in nature based on our experience in the past weeks.

Process Creation Training A valuable insight we gained from the physical inventory is a general misunderstanding of process. The team at the DC has incredible dedication to keep moving. We need to help instill the ability to create processes to channel activity. Some of the activity driven by the leadership team was counter-productive.

Leadership Training We strongly advocate teaching leadership teams the three responsibilities of management. They are:

1. Give your employees the tools and materials to do the job.
2. Provide systems that let them know what you expect.
3. Provide systems that give continuous feedback on how they are meeting those expectations.

While much of what we do is providing digital tools to meet these responsibilities, it is possible to meet them without a single computer system. Many of the tools we teach are visual indicators or methods to control workflow. Not understanding the reason for the electronic tools diminishes their value.

Title 2 has a training program we put together over the past two decades that teaches leadership groups about identification of constraints, building processes to exploit capacity, the responsibilities of management and how meeting those can magnify worker impact, and a list of other benefits. We would be happy to provide that training, if XXXXXXXX thinks it would add value.

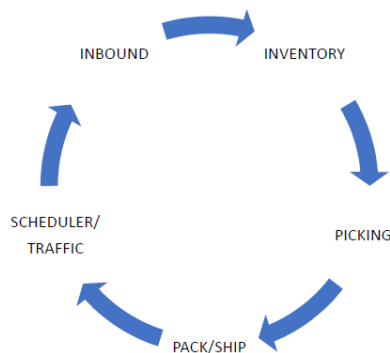


Figure 6 Leadership should be aligned along functional lines

Employee Improvements

We understand there was a large employee fallout during the move to the new DC. The DC is now in an area that has better access to qualified pickers, but also has more competition for the better workers. We believe there are some things we can do to improve recruitment, training, and retention of the workforce.

Build Stable Workforce XXXXXXXX needs a stable core of full-time employees. These are the base load of labor that is required during most of the year. As we modify the operating model, we can adjust this headcount. We can convert the best temps to permanent when we need to add headcount. We can use attrition to reduce headcount. As our capacity model improves, we will know the anticipated headcount at the bottom of the season. This headcount should be filled with permanent employees. The core of knowledge and culture is easier to maintain this way.

Workforce Training Training programs for temporary employees are necessary to ensure we are instilling the XXXXXXXX way. We believe that employees get more satisfaction from work when they know they are “winning.” We need to teach what winning means, and how to get there. Training temps and giving them the feeling of accomplishment will help with retention. While XXXXXXXX isn’t the best paying company in the valley, it can compete for better workers if those employees enjoy working here more than at the higher paying companies.

As we simplify processes and document best practices, we need to incorporate those changes into the training program. We can also use development of the training materials to better understand what complications need to be removed from the processes.

Our goal should be processes and training that allow a new temp worker to be up-to-speed and operating solo within four hours. An employee that can feel confident about work quality after a half day is more likely to return than one that is confused several days into the assignment.

Basic Discipline We must start to drive the basic disciplines that control activity we can see. That helps drive discipline in areas we cannot see. Using break bells eliminates the “time confusion” around work periods. Employees are expected to perform their duties until break starts. They are expected to be back at their workstation at break end and shift start. The bell serves the function of disambiguation.

If employees don’t follow the rules for things we can easily observe, they will not follow the rules for things we cannot easily observe.

General Concepts

There are several general concepts we are using in this document we felt were important to review. These are relatively new concepts or repurposes of existing concepts. We will not go into the details but want to give a general understanding of the important principles.

Continuous Replenishment/Picking The concept of continuous replenishment and continuous picking is a hybrid of traditional picking from backstock and wave picking a forward pick area. The tools available in modern WMS allow us to develop strategies to calculate picking and replenishment work in a continuous queue. We get the replenishment quantities required for a UPC now, and as we go further into the future with planned picks. Instead of calculating a wave of picks to replenish, we calculate the quantity required for all picks in the queue and order those replenishments as required for the highest priority picks first. If we can satisfy future demand in a single replenishment or satisfy multiple upcoming lines of replenishment in close proximity, that work is created as it would be in a wave replenishment setup.

Picking is similar. Picks are executed on a next-come/next-served basis down a work queue of tickets sorted from highest priority to lowest. Pickers that zone pick get work for their zone in its subset of that overall queue. If zone picking isn't desired, all pickers will work the entire pick area. That area can still be optimized for proximity picking. If designed with enough foresight, picking methodology algorithms can have built-in fail safes to move capacity during times of heavy demand. This movement of capacity can be accomplished automatically or reserved for management decision. The tools can be sophisticated if we set up the data collection correctly.

The advantages of continuous replenishment/picking include shorter drop-to-ship times, better replenishment effectiveness, improved inventory turns, and more agile pick face setup.

While this method can be used in our current layout, the forward pick module is ideal since picking and replenishment wouldn't share aisles.

Flex/Static Pick Face Allocation The concept behind the flex/static model is employed to balance between quick drop-to-pick times and efficient use of real estate. Static pick faces have product that resides there, and we always desire to have them close to full. Flex pick faces are designed to be empty and residual units in a flex pick face are not desired.

Setting static pick faces is a function of unit volume and the volatility of demand for a UPC and its related Style/Color group. Ideally, we would ignore Style/Color and treat each UPC as a discrete item that earns pick face on its own merit. We do not have replenishment systems that are

robust enough to do this at XXXXXXX, so we keep a Style/Color group together for ease of put-away and replenishment.

The new pick face layout is designed using this method. While there are a few anomalies, Style/Color groups are generally kept together. The pick face real estate is assigned based on reducing walk times for the most popular Style/Color combinations. Ten high volume UPCs have pallet sized pick faces. Flex pick areas are reserved at strategic locations, always assigned at a location with a lower alpha-numeric location ID so that they pick first, reducing the risk of residual. Items without static pick faces get flex pick faces with higher location IDs, creating a flex module that will generally have residual inventory that can periodically be cleaned through a take-all order or a cleanout “wave”.

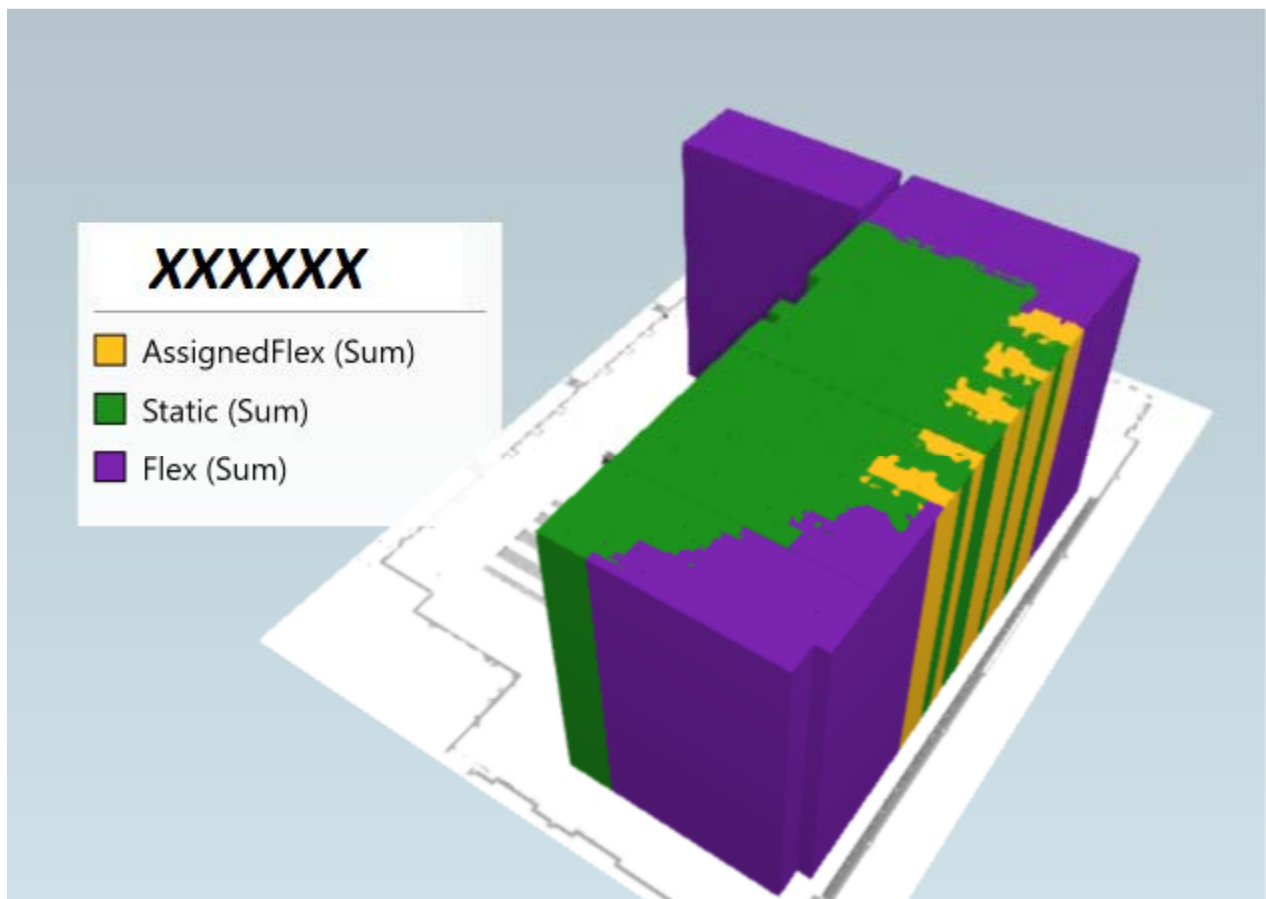


Figure 7 Modeled pick face slotting with static pick faces (green) occupying pickfaces closer to packaging. Slower moving items get flex pick faces (purple). The yellow represents overflow for a UPC, keeping the picker in the lanes near the static UPCs.

Replenishment Density versus Pick Density Part of the misunderstanding of setting smaller pick faces and replenishing more frequently is not valuing the different densities of each work type. Since most of XXXXXXX's product comes in cases of 12, each replenishment move has a density of 12 or a multiple of 12.

XXXXXX's pick density for non-case picks is generally less than 2. For each replenishment move, we get six or more times that in pick work. Using a case pull area ensures that our replenishment timing isn't as critical until we get better tools to generate and monitor work.

When we also consider that pickers are walking and replenishment is done from a forklift, the multiplier effect on overall value is even higher.

We want to shift work from picking to replenishment where possible by moving UPCs closer together.

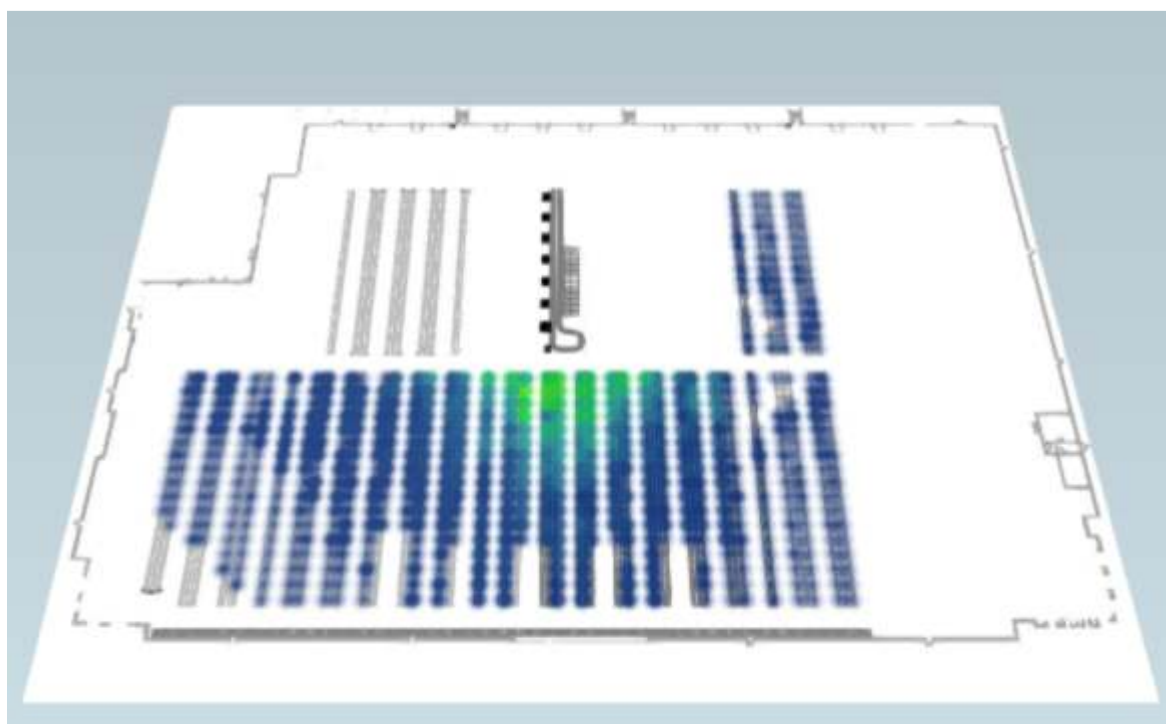


Figure 8 The new slotting scheme at XXXXXXX takes into account higher density (fewer moves) for replenishment. We want to keep the pickers in the lanes closer to shipping.

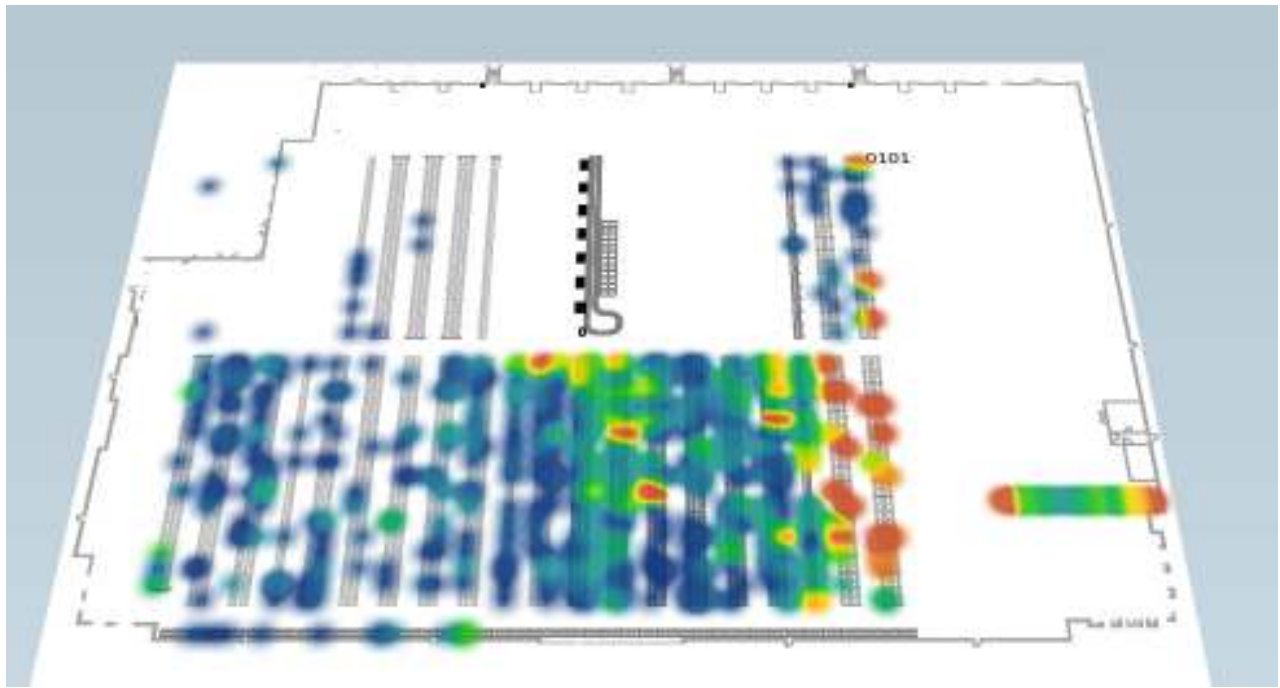


Figure 9 The previous slotting kept high volume products together, closer to backstock. The concentrations on this heatmap show that pickers walked past large swatches of slower moving inventory to get to bulk style picking.

Holistic Approach We will often refer to using a holistic approach to solving problems. We think that with the basic nature of many of XXXXXX's challenges, concentrating on the symptoms will not yield the results we need. Some of the issues we see at the DC are the result of what we do upstream. Managing order dates is an example.

We also see that what we do at the DC can have huge positive impacts at the main office. Once we have order scheduling under control, the constant inquiry and expediting of orders will not be necessary. Getting an order expedited should be as simple as affixing an expedited date. Dating is not the only function affected, but is probably the most visible.

The systems we advocate are ones that allow the company to be effective, not just the distribution center.

Next Steps

Title 2 is prepared and able to assist XXXXXXXX in any capacity needed. We have extensive experience in WMS selection and implementation as well as warehouse design and project management. We have experience in making modifications to existing facilities with no interruption to shipments or service proposition. Title 2 is also intimately familiar with XXXXXXXX's business which means that there is no learning curve required to begin the phase two project management.

Being able to define exact timelines and project costs at this stage is completely dependent on the level of engagement desired by XXXXXXXX and the commitment of local resources to the project. We are comfortable in saying that having a new WMS selected and implemented before the 2020 season is possible with minimal risk but will require starting immediately. And will also require considerable commitment from XXXXXXXX's employees as well. Title 2 is able to dedicate resources to manage the selection, configuration, training and implementation of a WMS to alleviate the demand on XXXXXXXX's internal resources however XXXXXXXX's employees will need to be involved in the design and be available as necessary during the configuration and implementation.

We welcome the opportunity to discuss your project, your required level of engagement and timing on a phase 2. We recommend a call to discuss your questions about this plan and how we can help with phase 2.

Appendix A

XXXXXXX DC Handoff

Pick / Replenishment Management You must not let Replenishment get too far ahead of picking. As you replenish the pick area, you fill the “Flex” locations up with residual product. This product picks clean (for the most part) and makes way for future Replen work. If you Replenish too much (without performing the pick work) , you risk “locking up” the warehouse. A good rule is to only replenish what you plan to pick now. If you do not plan on picking for a day or so, hold off on the Replen. It is ALWAYS easier to manage orders on the computer than it is to print it out and keep track of the paper.

Scheduler Training An instruction sheet has been created for the replenish build (and reset) steps to be performed by the scheduler and 2nd shift supervisor. These instructions should be updated as steps evolve.

T2 Automation Tools The automation scripts for Cycle Count Processing and Pick Ticket Printing are running on XXXXXX's RDP server. These RDP sessions (3 in total) need to be open on a desktop somewhere to allow the scripts to run. There is no user interaction required other than to make sure the sessions are open and scripts are running after any restart of the host machine. This is included in the instructions.

Pushback Capacity current capacity for pack and hold on the dock is determined by the layout of pallets, need to access individual pallets, size and number of orders that are ready to ship and several other factors. One significant limitation to pack and hold on the dock is that we cannot stack pallets on the dock. Each 40” x 46” space on the floor can accommodate only 1 pallet. Using racks, we can increase the density of each space fivefold. In the space of 2 pallets, we can put 10. When we have a WMS that can manage a located shipping dock, we can use push-back racks. These allow for multiple pallet racks to require only one forklift aisle for up to 5 pallets deep storage. For now, we should consider adding one additional rack to the dock end of each aisle, That would yield 13 racks, 10 pallets per rack, 240 pieces per pallet. We would pick up over 30,000 units of pack and hold with the addition of just 13 racks.