

How Indoor Mapping Improves Grocery Store Picking & Packing



Grocery Store Picking and Packing Best Practices

Five or ten years ago, you had to go to the grocery store in-person if you wanted to stock up your kitchen. But today, there are many apps and programs that allow you to order groceries from the comforts of your own home. This has opened up an entire industry of delivery services and professional grocery shoppers – and with it, an entirely new set of operational processes.

When someone orders groceries online, a store associate or shopper has to physically pick out the goods before shipping them off to the customer. Obviously, the more customers you can serve, the better for your bottom line. But you also have to take into account if you can serve multiple orders, how many orders you can pick/pack simultaneously, how long it takes for each store associate to pick and pack a single order, and whether your current pick and packing process is as efficient as it could possibly be.

Enter [grocery store indoor mapping](#), which is a 3D (and often interactive) visualization of your shop. Every product is laid out exactly where you can find them in the store, which makes it easier for grocers to pick and pack orders efficiently.

In this article, we'll go through some of the ways to improve order fulfillment by using an indoor mapping platform. We'll also talk about storage strategies that make the picking process faster, how mapping software can help with inventory management, the best practices for picking and packing, and so much more.

Let's get started.



Populate an Efficient Route

An efficient route is important for buildings. Whether it's for **emergency management** or inventory management, they help to provide an accurate plan. Grocery stores are notorious for their confusing layouts. Even with signs and labels, it's still difficult for many shoppers to find the items they need. This is compounded by the fact that some stores like to switch around product locations, which makes order picking even more challenging.

Indoor mapping solutions can map your store down to the inventory level. Because of that, you can plan out a more efficient route for order picking. Since you already know where each item on the list is located, and the items are listed in the exact order that you should get them, that eliminates the back-and-forths that often happen with non-map-enabled order selecting.

For example, if you aren't familiar with the store layout, you might wander around the store until you find one item in the order. Then, you realize that you passed another item that you need, so you double back.

More efficient routes mean faster order fulfillment and the faster you pick and pack, the faster the customer gets their order, increasing customer satisfaction. Plus, it reduces the strain on your employees and prevents exhaustion-related human error. It's a win all around.

We tested this out with one of our partners, an innovative grocery retailer **Loblaw Digital**. We collected store data across multiple locations and created an interactive app. The app checks where each item on the list is and then plans out the fastest and most efficient route to get all of them. Then, we sent out orders with multiple items and timed the picking process.

The results showed that picking orders with the app was 7 minutes shorter than the same exact run without the app. That's a whopping 15% increase in efficiency.

The app even took into consideration the kinds of products that store associates had to get. For example, frozen or cold items were set to be picked last so that they don't defrost before they reach the customer.

Perfect Your Storage Plan



Picking and packing in-store is becoming increasingly common, especially with smaller retailers. But giant grocery brands may fulfill online orders directly from a warehouse. In that case, how you organize your stored goods can make or break your picking and packing operations.

Some warehouses are chaotic. Things are shipped in and placed wherever there is free space. This obviously makes picking and packing more difficult than it should be since the order picker has to find the right items first. Similarly, retailers may always change up their storage plans which can make it difficult to locate items effectively.

The secret to efficient order fulfillment is creating a logical organizational strategy. For example, you can place similar products near each other or store goods based on popularity and volume. Whichever strategy you choose, the most important thing is consistency. And don't forget to keep your location clean and free of clutter to avoid accidents!

One of the best things about indoor mapping software is that you can map out different storage plans in your grocery store and test them without changing anything on the ground. This way, you can figure out what the most efficient strategy is for you at practically zero cost.

Choose the Right Strategy

Aside from your storage strategy, your picking strategy is another extremely important element of your operations. “Picking strategy” refers to how an order picker goes about filling an order. There are many different ways to pick and pack items. The right picking strategy for your business depends on many factors, such as average order size, how many orders you have to fulfill every day, how quickly you have to pick/pack the orders for maximum customer satisfaction.

Below are some of the most common pick and pack strategies.

Piece Picking	Batch Picking
Piece picking is the simplest way for to pick and pack items. With this method, orders are completed as they come in. For example, if a customer orders a dozen apples and two boxes of cereal, your workers will pick each item individually and send them off for shipping. While it’s relatively uncomplicated, it’s also the most time-consuming. Piece picking is best used for smaller grocery stores that don’t have a lot of volume.	Batch picking is like a levelled-up version of piece picking. Instead of fulfilling orders individually, multiple orders are fulfilled simultaneously as a batch. If you receive 10 orders from different customers, workers will pick and pack all of the items in one go. Each batch can have a “cut-off time,” say every 30 or 60 minutes. Batch picking is best for medium-scale groceries but still takes a lot of time compared to other methods.
Zone Picking	Wave Picking
Zone picking is a great strategy for extremely large stores with a lot of manpower. Workers are assigned to “zones” and workers only pack the items that are from their zone. Instead of one worker moving around the store, it’s the box/package that travels from zone to zone. Let’s say a customer orders two steaks and a selection of cheeses. The first worker in meat packs the steak, then passes the box to the dairy zone.	Wave picking is when orders are fulfilled according to specific criteria, such as priority (e.g. rush delivery) or delivery location (e.g. all orders from one zip code are fulfilled first). This helps to break up a large volume of orders into more manageable chunks. The problem with wave picking is that the orders have to be packed into their separate packages down the line, which requires a whole new set of processes and staff.

Locate Products Seamlessly

There are many challenges to picking and packing. Sometimes, items aren't where they should be because of restocking issues or changing product locations. This can result in longer picking times, delayed orders, and frustrated customers.

One of the goals of grocery store mapping is to make the order picking process more seamless. Every product is programmed into the map on an SKU level. You'll find full inventory management data such as the product number, price, and its exact location in the store.

Finding the right items is as easy as browsing through the app and following directions.

When you have new products and items to add to your inventory, indoor mapping will also make it easier for you to add it into the inventory management system. This way, you'll always be able to locate your products.



When you can locate products easily, you free up time and manpower for other tasks. Workers aren't spending the entire day shuffling around the store for just a handful of orders, increasing productivity and reducing mistakes.

Reduce Distance and Time Travelled

Even the biggest grocery stores have a maximum number of orders that they can fulfill every day. The more your workers have to move through the store to pick and pack, the fewer orders you can complete. And even if you have enough manpower, that's manpower that can be used more efficiently for other store operations.

The number one factor in long pick and pack times? The distance that workers have to travel to complete an order. Indoor mapping provides an easy solution for this because the most optimal routes are mapped out – store associates don't have to scramble for items, they just have to follow the planned route.

When we tested our indoor mapping solution with Loblaw Digital, we found that app runs were much shorter than usual. We cut distance travelled by as much 13%, allowing workers to complete more orders in the same amount of time.

Accurate Inventory Profiling

Keeping an accurate inventory count is essential to grocery store management. If you know what's being moved and how often, you can better plan when you need to restock. This leads to cost savings since you're not overstocking unpopular items, stocking too frequently, and holding items in storage for longer than necessary.

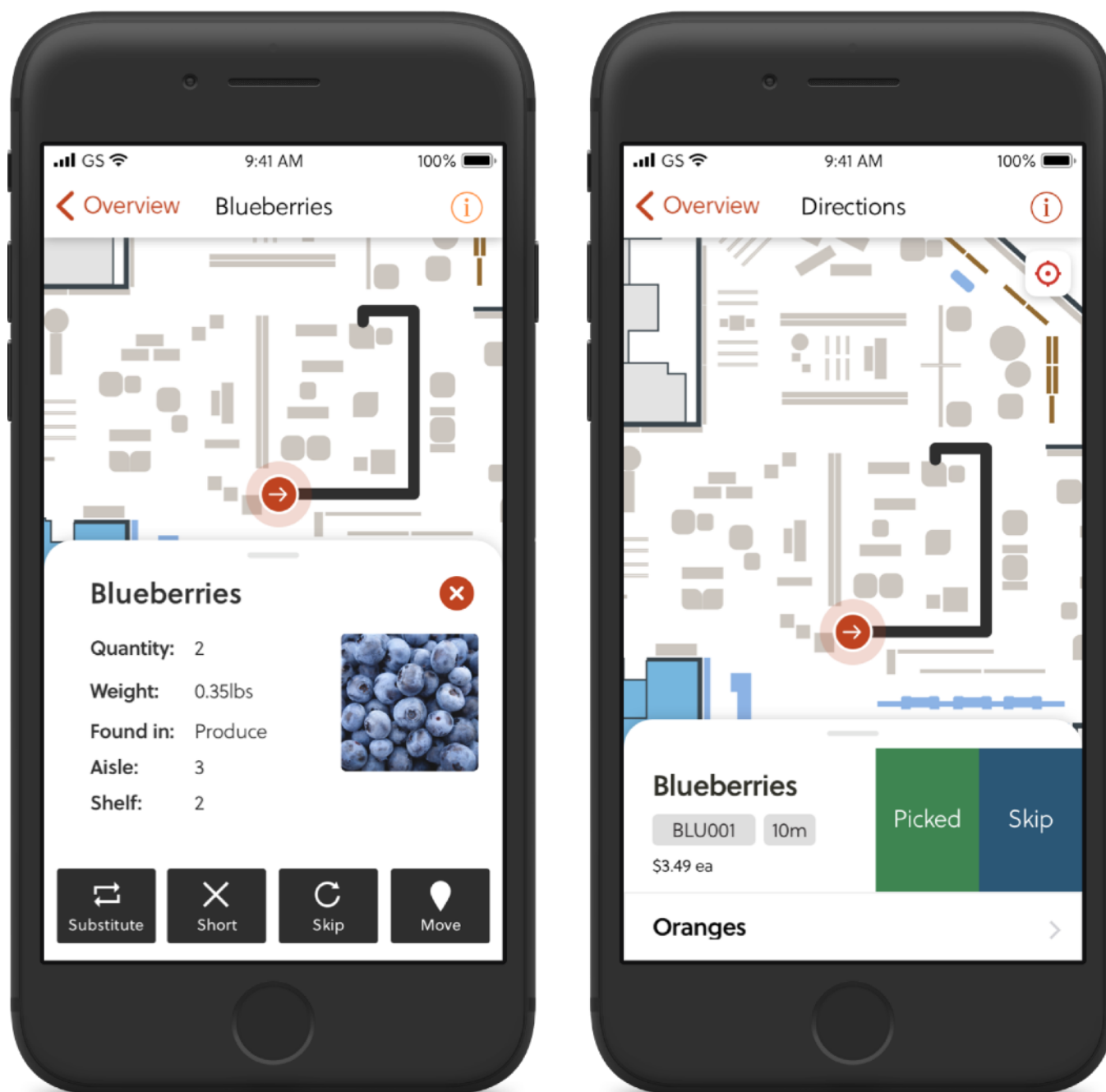
Indoor mapping tools help you keep track of inventory by automating your stocktaking. For example, the pick and pack app we developed allows store associates to mark an item as sold or shipped. That input is automatically recorded by the system, which then updates the inventory as needed.

Digital Order Tracking

Another common speed bump in picking and packing is the fact that workers have to log items that are shipped out. Even if a small order takes just a few minutes, that can stack up if you have a large customer base.

Fortunately, indoor mapping can help automate inventory management. With Mappedin's grocery store maps, store associates can mark items as “picked” when they ship it out for the customer. You don't have to create a separate process for tracking orders since it's already built into the app.

This is much more efficient than paper-based systems, which are also prone to human error. By tracking orders digitally and on the same app, you can ensure that every customer gets their order fulfilled, and there are fewer accounting mistakes. Plus, orders are updated in real-time, so there are none of the delays usually associated with manual order tracking.



Optimization Through Data

The best decisions are made based on data, but keeping track of the various operations in your grocery is practically a full-time job in itself. Indoor mapping platforms like Mappedin allow you to extract valuable insight from your day-to-day processes.

Here are just some of the things you can track with indoor mapping software:

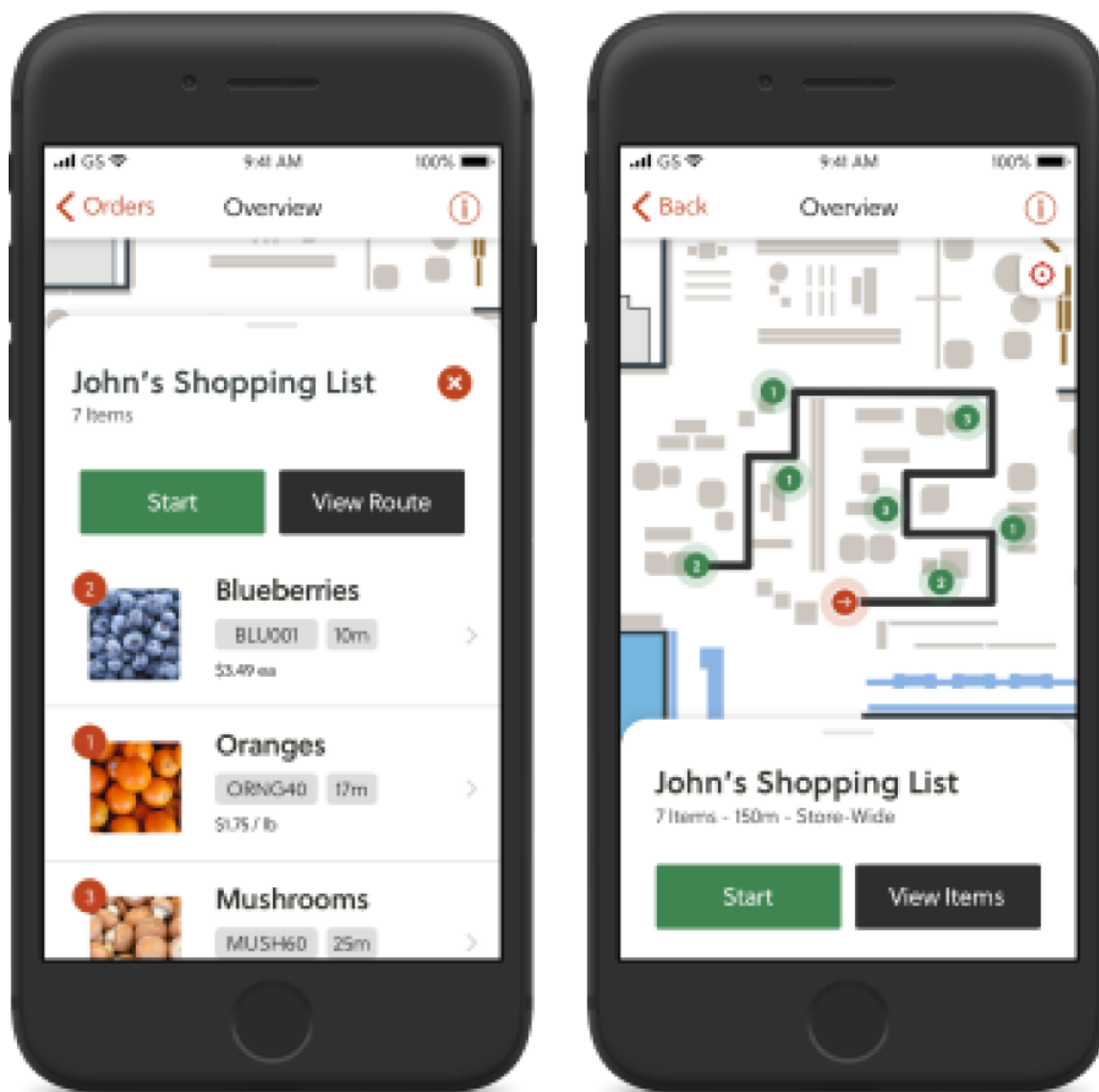
- **Worker movements & productivity:** Indoor mapping apps allow you to track how workers move throughout the store when picking and packing. This can help you pick the right picking strategy (e.g. batch picking, zone picking, etc.) to maximize efficiency.
- **Optimal product location & placement:** How quickly your workers move through the store also depends on where the products are located. Through the app, you can see which products are most often bought together and plan your store layout accordingly. You'll also know to place frequently-picked items waist-high to reduce worker injuries and speed up the process.
- **Inventory management:** Whenever your workers pick and pack, they can mark items as sold through the app. This tells you which items are moved more frequently, therefore giving you better control over your inventory.
- **Other key performance indicators:** There are plenty of KPIs that you can monitor through our mapping software, such as space utilization, order fulfillment rate, order accuracy, and labor costs. Once you have that information, you can identify process weaknesses and make better business decisions.

As a bonus, indoor mapping tech provides you with all of this data in real-time. This is especially handy if you have stakeholders or investors who are constantly demanding updates.

Retail Wayfinding Solutions

Aside from picking and packing efficiencies, there are plenty of other ways to maximize an indoor mapping platform like Mappedin. In fact, we offer a whole host of wayfinding solutions for grocery stores, malls, retail spaces, and other industries.

We also create wayfinding shopper apps that help customers find the products they're looking for. It's like a companion map for your store, complete with text directions and animated pathing. Customers can even view product details like price, size, and more – all from their mobile device.



Mappedin can use the same data for a custom in-store digital directory. These interactive maps can be placed in strategic locations around your store to guide customers to the right product, service, or section. They can display different information necessary to keep your shoppers informed.

Conclusion

The pick and pack process for online grocery retailers provides a great opportunity for optimization. Even large stores can always stand to improve certain aspects of the process, such as order selection routes, picking strategies, and inventory profiling. We hope these best practices will help you in improving your own picking and packing operations.

Interested in incorporating indoor mapping into your own store for better picking and packing? Contact us today to learn more about our interactive 3D mapping services!