Advanced Picking Process in Warehouse

# Background

Order picking – The most important process in the warehouse. Not only because of the accuracy and efficiency of picking will directly affect the customers’ satisfaction, but also because it is very costing in term of labor and complexity in many warehouses. A recent research shows the cost of order picking is estimated to be as much as 55% of the total warehouse operating expense.

Choosing the best method of order picking needs careful consideration of SKU type/nature, business mode, available equipment, 3rd party systems, and customers etc. In the real word, there is no magical pill that works for all circumstances. Many times a combination of picking method is needed to achieve the fine balance of efficiency and accuracy.

## Implement Advanced Picking Process based on JDA WMS

Bleum is highly involved in JDA/RP core features development and implementation. With sufficient system and field knowledge, Bleum successfully implemented many best industry practices for our customers. Here’re some advanced picking process we implemented based on JDA WMS.

#### List Picking

#### By leveraging highly configurable List Picking in JDA WMS, Bleum implemented varies picking process solutions for customers for different scenarios. For example:

##### Breaking by total pick/order quantity

The number of picks, orders in one pick list will determine the efficiency/accuracy of one pick tour, and also impact assorting effort follows after list pick. Utilizing the pick quantity and order quantity and considering the number of operators in warehouse could figure out a fine balance for a list pick.

##### Sequence by location travel sequence

The sequence function in the list leads the operator to follow the best picking tour to perform the picks in a list. It reduced the picking time and improves the picking productivity.

##### Grouping by picking area/work zone

In some of the warehouse, there are pickers working in several areas perennial, they are much familiar with the items and locations in those areas. And also there are various conditions of area/work zone, such as frozen area, high shelves areas, having the picks from the same area grouped together would benefit a lot to efficiency.

#### Threshold Picking

#### Threshold picking is a special process designed for scenarios like picking a full pallet pick for one/multiple orders whose total order quantity is closing to a full pallet, the additional quantity on the full pallet picked is removed later before moving to a staging area.

Today’s modern warehouse, automated retrieve system are frequently used in the receiving and shipping process. Threshold pick is one of the solutions to maximize the utilization of automation equipment. System leads the operator/machine to follow same process of standard case/pallet pick when dealing partial case/pallet picks by adding a “split” process.

#### Automated Picking Process

#### With the high technical automation system, integration ability of WMS is getting more attentions. Bleum team has varies integration experience using the JDA WMS to help customer implement automation system easily and smoothly. For example:

#### Pick-to-Light

#### To utilize Pick-to-Light system efficiently, integration of WMS and PTL system needs to be very careful on those data transitions.

Pick work information will be categorized and send to PTL system after pick get released. Control of the number of in process pick work will be taken into pick release process to ensure the traffic of line is in a suitable status. And each push after pick is listened by the WMS to have immediately reflection to keep both inventory’s accuracy, and order’s status updated.

#### Put-to-Light

#### Put-to-Light is also very common during the WMS integration. To reducing the complexity during the Put-to-Light phase, the WMS’s “integration” work starts earlier in the picking phase.

#### One of the scenario Bleum team implemented for is using the Put-to-Light as a sorting function for multiple picked inventory for outbound.

The information of picks is sent once the first pick starts to have an earlier notice to the Put-to-light system. So that the shipping container could be prepared, and when the picks finished and read for sort, the WMS will send Cartons’ information and require those shipping containers for sort. The “Put” operation is send back to WMS to determine the shipping container’s status whether it’s read for “push” to the next packing location.

# Summary

Order-picking can be very simple in small operations, however in many cases it could be very complex when you want to improve efficiency and accuracy in details to catch-up the fast growing/changing business demand. Pick method and equipment are important, yet making them working with WMS system in a fine designed process is essential. Extensive data analysis and careful consideration is necessary in determining the best methods for order picking.