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# 21<sup>st</sup> Century Retail Sales Cycle

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# Fulfillment and Warehouse Management Systems

## The Backbone of Your Perfect Order Processes

This is the fourth in a series of articles on the perfect order concept and best practices that trading partners can utilize in achieving the goal of an error-free supply chain. The articles are based upon a recent study commissioned by the Retail Compliance Council and conducted by Supply Chain Visions, Georgia Southern University and Compliance Networks; and the "Supply Chain Management Process Standards," published by the Council of Supply Chain Management Professionals, authored by Supply Chain Visions.



By Kate Vitasek,  
Supply Chain Visions

In the last issue of the Journal of Trading Partner Practices (June-July issue) we discussed best practices relating to warehousing (receiving and inspection, material handling, slotting and storage) processes and how they can help companies achieve perfect order status. Some highlights of warehousing best practices are:

- System enabled alerts for incoming product's immediate order requirements, creating a cross-docking or immediate replenishment task upon receipt.
- Leveraging the Advanced Ship

Notice (ASN) sent by suppliers by using bar code scan verification of product to ASN, pre-receiving or paperless receiving using ASN and pre-slotting of items to speed physical receipt and reduce data entry time.

- Slotting based on the proximity to the prime pick location and cube utilization.
- Storage systems are designed to maximize space cube utilization while enabling efficient put-away and replenishment functions.

We now turn to the processes that support fulfillment and warehouse management systems.

### Picking and Packing

Order picking must be efficient and error free. Companies should have a process in place to combine open orders for a single ship-to address, within the customer/client agreed upon order fulfillment window. Not only will this reduce the cost associated with picking product, but it will improve on-time shipments. Anytime an order is split or shipped incomplete the retailer must go through the receiving process again, adding duplicate receiving cost to its distribution costs. Incomplete or split orders should be avoided.

Picking and packing best practices are characterized by:

- Pick-to-light, RF terminals, wireless speech system or a similar WMS system enables automated order communication to personnel.
- Conveyors or other automated material handling systems (MHS) bring product to each pick zone eliminating travel time for pickers.
- Optimized wave picking and interweaving.

- Pick travel time minimized through order picking in travel path sequence, batch picking of the same SKUs for multiple orders or wave pick sequencing to plan picks per zone in advance.
- Record of daily activity by major task and manning levels displayed on warehouse floor.
- Productivity targets set and measured, showing an improving trend and/or meeting goals.
- Customers can review performance levels via on-line reporting.
- Excellent housekeeping.

### Consolidation/Loading

Processes and the Warehouse Management System (WMS) system should support load consolidation and combining all open orders to the same ship-to address. The WMS should build out a truck loading sequence that supports the delivery routing (i.e. first truck destination loaded last).

Consolidation and loading best practices are characterized by:

- Optimized 3D trailer loading.
- Load consolidation with break-bulk processing at remote terminals.

### Shipment Documentation

Shipments must include all required documentation. Documents should be produced by the WMS system and not by multiple or stand alone systems. Most WMS systems support the production of export compliance documents and labels, client-required packing lists and labels, and appropriate hazardous material documents. The shipment manifesting system should be automated and include shipment tracking updates from freight carriers.

Shipment confirmation in the system should only take place at truck close so that ASN's sent to the retailer show only loads that have actually left your dock.

Shipment documentation best practices are characterized by:

- Electronic download and generation of shipping documents from system of record.
- ASN's automatically sent by EDI or Web when required by customer.
- Single bar code or RFID device contains or points to all information on entire consignment, enabling single scan receiving.
- Customer compliant AutoID labeling applied at dock.

### Warehouse Management System (WMS)

Companies should invest in a WMS system that supports receiving, put-away inventory and slotting. The WMS system, if not part of an integrated ERP system, should be fully

integrated with order management and manufacturing systems for end to end visibility. The WMS system should provide reporting and tracking of key performance indicators (KPI).

WMS best practices are characterized by:

- Fully systems-driven WMS with perpetual inventory covering the SKU range quarterly.
- Dynamic location assignment including lot control zoned put away, quality assurance, and ABC frequency of access.
- Location and rotation controlled by Remote Data Terminals (RDT's).
- WMS fully integrated with other business systems
- WMS supports Activity Based Costing / Management.
- WMS supports Value Added Services and Postponement.
- Slotting and picks controlled by RF Remote Data Terminal (RDT's), voice or pick-to-light.

### Conclusion

A fully integrated WMS system is the backbone of an efficient warehouse and your efforts in achieving the perfect order. The system must support order management and shipping functions. Picking processes must be supported by your system. RF based systems provide greater accuracy and improve throughput. Having the ability to consolidate orders and shipments will support on time and complete shipments. Shipment documents should be output automatically by the system based on retailer centric business rules.

The next article in the series will look into customization and postponement best practices.

Companies wishing to obtain a copy of the Retail Compliance Council's report, "Benchmarking the Perfect Order," should contact Kate Vitasek at: [kate@scvisions.com](mailto:kate@scvisions.com). Companies wishing to obtain a copy of the "Supply Chain Management Process Standards," should contact [www.escomp.org](http://www.escomp.org).



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