Unlocking Warehouse Potential with Six D365 Advanced Warehousing Strategies

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The Promise vs. The Reality of Advanced Warehousing

For distribution-focused companies still running on legacy warehousing solutions, advanced warehousing solutions are an unfamiliar concept. But as existing systems age and maintenance and support costs mount, modern solutions that promise increased efficiency and throughput, reduced operational costs and enhanced customer satisfaction are becoming all the more alluring.

The reality is that this promise can often be hard to achieve due to operational challenges that often result from organizational and technological choices that were years in the making. Across industries, companies find themselves bogged down with legacy processes and data quality issues. Bottlenecks in key processes and the lack of real-time visibility hold teams back from necessary changes, and difficulty adapting creates uncertainty about future investments.

How can companies overcome these problems? Microsoft Dynamics 365 Supply Chain Management (D365 SCM) and its Advanced Warehouse Management module can help. With a holistic approach to warehouse requirements, a well-implemented D365 SCM solution can achieve the most sought benefits such as:

- Automated replenishment from bulk locations to pick locations

- Advanced picking strategies including wave picking

- Integrated support for production processes

- Comprehensive labeling support using Zebra Programming Language (ZPL)

- Accurate and effective inventory counting and reconciliation

- Cross-docking capabilities for accelerated inventory movement from receipt to shipment

Let's take a look at ways that D365 SCM's Advanced Warehouse Management can help and ways to measure newfound success.

Automated Replenishment Strategies: Bulk Locations to Pick Locations

Automated replenishment is a cornerstone of efficient warehouse operations, ensuring that pick locations are consistently stocked from bulk storage to meet outbound demand. Dynamics 365 Advanced Warehouse Management offers several replenishment strategies to optimize this process:

- **Wave Demand Replenishment:** This strategy triggers replenishment work for outbound orders or loads when inventory is insufficient at the time a wave is processed. For example, if a sales order requires more inventory than is available, replenishment work is automatically created during wave execution to fulfill the demand.

- **Min/Max Replenishment:** Establishing minimum and maximum stocking limits determines when locations should be replenished. Min/Max replenishment templates help maintain optimal inventory levels in picking locations. To ensure enough pick face (forward picking location) inventory is available for wave demand, demand replenishment can supplement Min/Max cycles.

- **Load Demand Replenishment:** This approach aggregates the demand across multiple loads and generates the necessary replenishment work to stock relevant picking locations. It helps guarantee that loads can be picked efficiently once released in the warehouse.

- **Immediate Replenishment:** If inventory allocation fails for a location directive line that uses a replenishment template, then this strategy automatically replenishes the picking location before the wave is processed. This ensures that pick locations are stocked and ready for upcoming warehouse operations.

By leveraging these strategies, organizations can automate the movement of inventory from bulk to pick locations, reduce manual intervention and maintain high service levels in their warehouse operations.

Advanced Picking Strategies in D365

Disconnected picking processes create customer delivery delays, production delays, operational bottlenecks and inventory inaccuracies. With D365 SCM, companies can move to integrated picking workflows, material reservation and allocation prioritization, as well as real-time consumption tracking and visibility. Mobile-enabled picking menus can be easily modified to tailor the user interface to match the process used by the company.
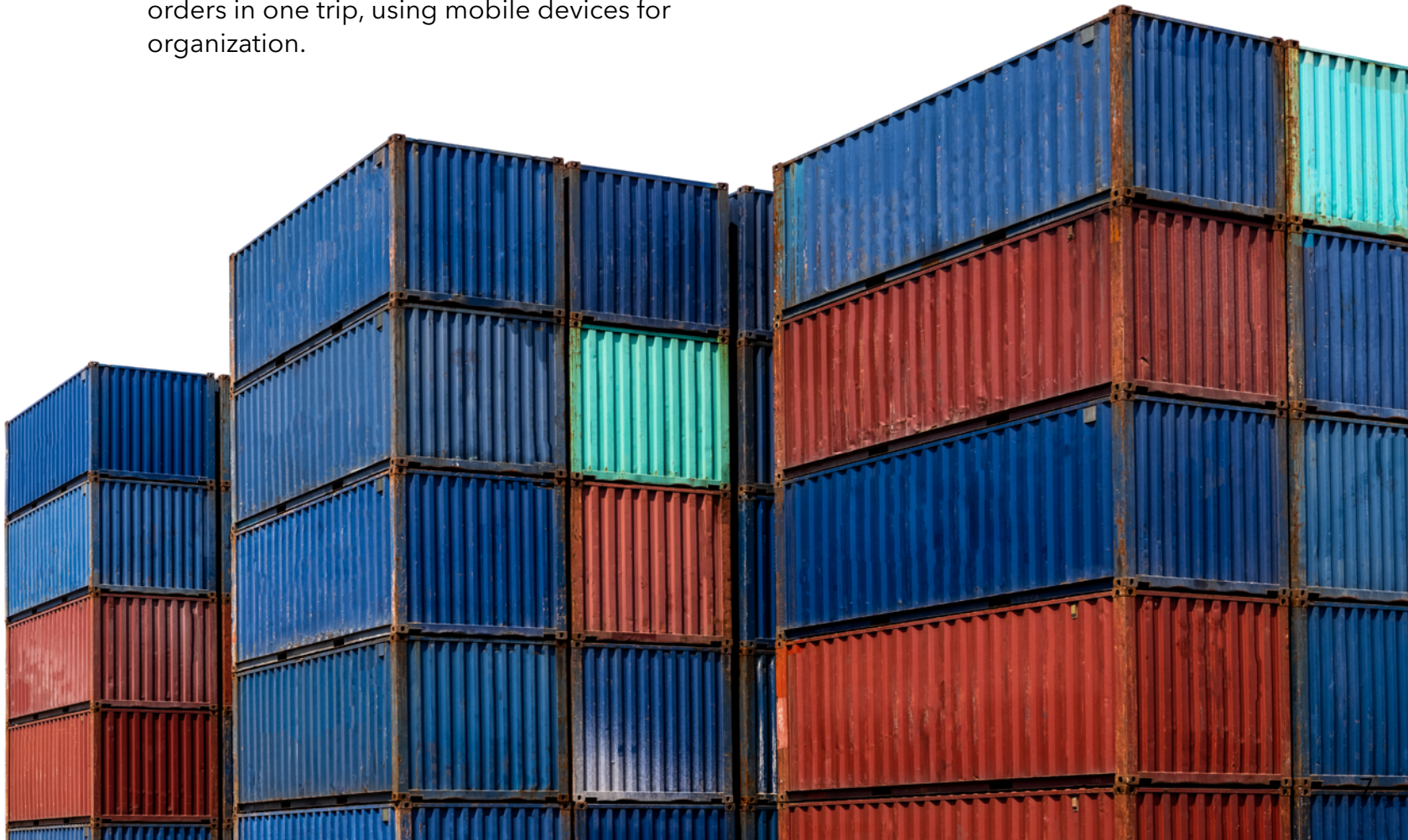
Dynamics 365 Supply Chain Management offers several advanced picking strategies that boost warehouseefficiency and accuracy.

Key picking strategies include:

- **Wave Picking:** Picks grouped orders in bulk to minimize travel and handling time.

- **Cluster Picking:** Picks items for multiple orders in one trip, using mobile devices for organization.

- **Batch Picking:** Simultaneously picks items for several orders, sorted later for shipping.

- **Zone Picking:** Assigns pickers to specific zones, improving efficiency for high-volume operations.

- **Pick Line Grouping:** Consolidates pick lines for identical items and locations, streamlining retrieval.

By implementing these strategies, organizations can achieve faster order fulfillment, improved accuracy, labor utilization and reduced operational costs. D365 SCM's dynamic work templates and automated location directives make it easier to adapt picking processes to changing business needs and scale operations as demand grows.

Integrated Support for Production Processes

To improve production picking, companies should configure dedicated staging locations. Organizations can take steps including:

- Setting up production-specific work templates and directives

- Implementing pull-based material release triggered by the status of the production order

- Designing picking strategies aligned with production schedules

- Incorporate lot and batch tracking into warehouse operations

Companies can assess their success by looking for reduced production delays due to material availability or decreased raw material inventory discrepancies.

Mastering Labeling Complexity and Compliance

Manual label creation can easily result in inconsistent formatting and regulatory compliance issues. With D365 SCM, companies can deploy an integrated label management system, customize label templates and formats and automate label generation based on business rules. enVista has worked with clients to support common industry standards like GS1, SSCC, UCC 128 and others.

A key advantage is the use of Zebra Programming Language (ZPL), which streamlines label creation and printing. ZPL enables companies to design and generate labels quickly, ensuring consistency and compliance across all warehouse operations. By leveraging ZPL, organizations can automate label formatting, reduce manual errors and simplify integration with Zebra printers and other compatible devices.

Companies should plan to configure label templates for different item types and customer requirements, set up rules for automated label generation at key process points, and implement scanning validation to ensure label quality. They should also integrate compliance requirements into label designs.

To evaluate their success, companies should monitor key indicators such as reduced labeling errors, fewer customer chargebacks, higher compliance rates and minimal manual label handling

Accurate and Effective Inventory Counting & Reconciliation

There's one particular, circular challenge that plagues many inventory-based companies: inefficient inventory counts create inaccuracies, driving companies to avoid counting inventory entirely.

For D365 SCM solutions, organizations can implement flexible counting methods such as cycle counting, blind counting, spot counting and threshold-based counting. This can entail mobile-enabled workflows with real-time validation, automated count scheduling and work generation, or variance tracking with approval workflows.

There are a variety of implementation types to choose from. For instance, configuring ABC classifications can enable prioritized counting frequency. In other cases, setting up blocking rules can prevent movement during critical counts, implement targeted counting work templates, or create inventory accuracy dashboards.

What about success metrics? One of the most important is improved inventory accuracy, ideally over 95-99 percent. Reduced time spent on counts with minimal operational disruption is another.

Cross-docking Capabilities for Accelerated Inventory Movement from Receipt to Shipment

Traditional receiving and putaway processes create unnecessary handling and storage for fast-moving inventory. With a D365 solution approach, companies can implement automated cross dock identification and routing. They can deploy purchase order to sales order linking capabilities or set up cross dock opportunity alerts and notifications. It's important to understand that there may be planned versus opportunistic cross docking workflows.

To implement cross docking, companies can configure cross dock profiles by item and customer priority. In other cases, they want to set up dedicated cross dock staging locations, implement work templates that bypass traditional putaways, or design dashboards for cross dock opportunity tracking.

As for success metrics, companies should look for reduced handling costs and storage requirements along with accelerated order fulfillment times for cross-docked items.

Managing True Landed Costs Beyond the Purchase Price

Businesses lack visibility into total acquisition costs, leading to inaccurate inventory valuation and pricing decisions. The Landed Cost module in D365 Supply Chain Management is an essential tool for businesses handling international trade or complex deliveries. It simplifies the management of shipping-related costs and improves cost accuracy.

With a D365 solution, companies can move to a multi-tier landed cost tracking framework, automated cost allocation across receipts, and landed cost variance identification. They can also import charges and duty calculation capabilities.

To implement this approach, companies should configure landed cost groups aligned with procurement practices. It is vital to set up estimated vs. actual cost comparison workflows, implement cost factor categories such as freight, duties, and handling, and design landed cost reporting for margin analysis. Companies can determine whether their approach is working through success metrics. For instance, they could look for more accurate total cost of ownership calculations or improved pricing decisions based on true acquisition costs.

Inventory Slotting-Optimizing: Placement for Maximum Efficiency

Poor inventory placement leads to inefficient picking, wasted space, and excessive material handling. With a D365 solution approach, companies can move to data-driven slotting optimization tools, velocity-based location assignments, dynamic location directives based on item characteristics, and automated replenishment from bulk to pick locations.

For implementation, companies can consider implementing ABC velocity classification for prioritized placement. They can also configure pick path sequences aligned with warehouse layouts, set up zone-based storage strategies for similar items, or design replenishment triggers based on consumption patterns.

To determine success, companies should look for reduced picker travel time and increased picks per hour, as well as improved space utilization across the warehouse.

Conclusion

Moving from legacy systems to a modern, advanced warehousing solution, distribution-focused companies can enhance efficiency, boost throughput, reduce operational costs and increase customer satisfaction, all while modernizing the experiences of all stakeholders.

By using D365 Advanced Warehouse Management, companies can achieve effective inventory counting and reconciliation, overcome labeling complexity and compliance challenges and streamline warehousing and manufacturing. They can also improve inventory slotting optimization to increase space utilization, efficiency and reduce inventory handling.

More about enVista

As a Microsoft Business Applications partner, enVista brings deep expertise in Dynamics 365 Finance & Supply Chain Management and Business Central. We help organizations modernize their enterprise systems and unlock the full value of their Microsoft investment through:

- Dynamics 365 F&SCM implementation, optimization and upgrades

- Business Central deployment and integration for mid-market organizations

- Supply chain strategy and network design

- Technology modernization across WMS, TMS, ERP and automation systems

- Warehouse automation & robotics

- Facility layout, flow, and design optimization

By combining Microsoft platform expertise, supply chain consulting and automation engineering, enVista enables organizations to execute a connected, data-driven transformation.

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