



Warehouse Management and Execution System

A Breakthrough in Distribution Software

Softeon Delivers Integrated Warehouse Management and Execution System

The challenges in distribution – cost, throughput, and customer service – have never been greater. To meet those challenges, companies need a new set of tools, more aligned with the dynamic nature of today’s order fulfillment environment and that provide next-generation capabilities to optimize and orchestrate end-to-end distribution processes.

Softeon is the only Warehouse Management System provider to also offer a powerful Warehouse Execution System (WES) integrated with the WMS, or deployed as a stand-alone, in any environment. Together, the WMS and WES can enable companies to meet customer demand and service commitments at the least possible operating costs.

Softeon’s combined Warehouse Management and Execution System is a true step-change advance in distribution software that resets the game in order fulfillment.



WMS
Warehouse
Management



WES
Warehouse
Execution

It Starts with Advanced Warehouse Management

Real-time Warehouse Management Systems (WMS) have been around for almost 50 years now.

WMS continues to drive value in thousands of distribution centers. Softeon's WMS provides a powerful platform to manage inventories, direct labor and resources, as well as pick, pack and ship orders. It is loaded with innovative, differentiated capabilities that comprehensively handle the basics (receiving, putaway, inventory management, order picking, loading, shipping, etc.) but that also provide unique functionality to give your operation a competitive edge.

Developed on a single, integrated Service-Oriented Architecture (SOA) platform, Softeon WMS is a functionally rich, highly versatile, and easy-to-use system to manage DC operations at higher levels of efficiency and productivity. The solution gives you complete, real-time control over inbound, outbound and inventory management processes.

Softeon's WMS is recognized for the breadth and depth of its functionality, and its multiple levels of configurability, which enable companies to tailor the system to meet specific company and facility needs right out of the box. It offers many innovative capabilities, including Softeon's unique "visual warehouse" functionality, highly configurable "pick route" optimization, the WMS industry's only true Configuration Wizard to speed-up the WMS deployment (especially in multi-site rollouts) and much more.

Those core WMS capabilities are augmented by additional and completely integrated modules to solve other distribution challenges.

Those include:

- **Resource (Labor Management):**
Plan and track human and equipment resources, provide detailed and even real-time performance metrics, leverage discrete engineered standards or an alternative statistical approach
- **Yard Management:**
Allow carriers to set appointments online, schedule dock door activity, and have real-time visibility into yard inventory.
- **Slotting Optimization:**
Automatically identify opportunities to re-slot products to reduce travel time, perform cost-benefit analysis on potential slotting changes, automatically insert slotting moves into the WMS task queue, and create dynamic slots for high-volume SKU demand or picks for unslotted items
- **Assembly and Kitting:**
Manage complex work orders, execute work against a multi-level bill of materials, manage component and final SKU inventories, create kits or de-kit SKUs, and track work order costs at a granular level
- **Parcel Shipping:**
Optimize parcel shipping with native support for all major carriers, direct web service integration when needed, perform rate shopping, and print carrier compliant labels whenever needed in the process
- **Distributed Order Management - DOM:**
Dynamically select the low cost sourcing point that meets customer service commitments while considering network capacities and constraints



The Rise of Warehouse Execution Systems

Despite the many benefits of Warehouse Management Systems, many distribution centers still report a series of on-going operational challenges.

Those include:

- **Inadequate Labor Planning Tools:**
Specific resources not in the right place at the right time
- **Time/Cost/Approach of Adding New Technologies:**
From Voice to put walls to mobile robots, sub-systems are often implemented in silos, causing longer deployment times
- **Sub-Optimal Picking Execution:**
Opportunities for batch optimization and other picking and replenishment productivity gains are not available
- **Difficulty Meeting Carrier Cut-Off Times/ Ensuring Customer SLAs are Met:**
Major challenges in consistently hitting carrier cut-off times, with some level of “chaos” as deadlines approach
- **High Variability in Materials Handling Equipment Utilization:**
Automated or semi-automated (e.g., put wall) systems often experience large peaks and valleys in volumes, reducing throughput and generating idle equipment and human resources
- **WMS Processes are Still Highly Reliant on Human Decision-Making:**
For all the capabilities of advanced WMS, many manual decisions are required, creating latency and resulting sub-optimal decisions given all the data involved in making those decisions

The Good News

A relatively new type of software, called a Warehouse Execution System (WES), can address these and other challenges, taking distribution performance to new levels after two decades of mostly incremental progress in core WMS functionality.

Softeon’s Warehouse Execution System provides visibility, orchestration and optimization of order picking and related processes, which include maximizing materials handling system utilization and leveraging capabilities far above what is available today - even in advanced WMS platforms.

As a result, Softeon’s WES enables companies to minimize total fulfillment costs while meeting demand and customer service commitments.

The Softeon WES also significantly shrinks the gap between theoretic and realized throughput in the overall DC or specific sub-systems/processes. As just one of many examples, Softeon ensures high “turn” of put wall “cubbies,” solving the frequently reported issue of long wait times for all the items needed to arrive at a wall. Softeon eliminates this problem by calculating the time it will take to pick and transport items from different areas of the DC so they arrive in close proximity to each other, and through dynamic prioritization of order picking at the line-item level.

It also provides a single system for management and control of fulfillment across a distribution center, from optimizing the flow of goods to dynamic resource allocation. And critically, as opposed to existing WES solutions, Softeon’s WES delivers these benefits for highly automated, manual or medium automation DCs.

Softeon’s WES can be deployed as part of a new automation system or on top of an existing, perhaps aging, WMS to turbocharge performance without the need for a full WMS replacement.

Towards the Autonomous WMS

A breakthrough capability of the Softeon WES is its ability to automatically and optimally release picks, replenishments, and related work to the floor without the need for human intervention – or what we call “autonomous processing.” This is far beyond so-called “waveless picking” – the Softeon WES considers order priorities, optimization opportunities, resource availability, processing, transport/conveyance times, carrier appointment and cut-off times and more in the direction of workflow to the floor. This reduces costs and ensures SLAs are easily met.

The WES also uses advanced simulation to compare known and forecasted work in the DC against available resources. This results in a time-phased (hourly) dashboard that identifies where and when there is going to be a resources shortage, overstaffing, or just the right amount – and can suggest or automate dynamic allocation of associates to different areas based on the demand.

Direct Connectivity to Picking Technologies

Softeon’s WES also uniquely provides direct connectivity at the API level to a wide variety of picking sub-systems, including Voice, smart carts, pick-to-light, put walls, mobile robots and more, without the need for any third-party software. This has a variety of financial and operational benefits, from much lower-cost hardware to the optimization of the full picking, replenishment, and slotting processes, plus robust exception management not possible with siloed control systems for these technologies.

For more advanced materials handling systems such as sortation, AS/RS and more, Softeon’s WES meters the flow of goods into these systems based on current utilization and the available order pool, level-loading volumes to maximize throughput.

In situations where there are alternative paths to pick and pack/stage an order, the Softeon WES will automatically re-route picks from their normal pick routes in the case of bottlenecks or excess volumes to keep the flow of goods moving.

Powerful Benefits of Softeon WES

All these capabilities and more combine to deliver a powerful set of benefits from Softeon’s WES.

Those include:

- **Double Digit Improvement in Labor Productivity**
- **Significant Reduction in Supervisory Overhead**
- **Reduced/Better Managed Overtime**
- **Improved Throughput Overall and in Specific Processing Areas**
- **Rapid Evaluation and Deployment of New Sub-Systems/Technologies**
- **Maximum Flexibility to Adapt Over Time**
- **Consistently Closing the Gap Between Theoretic and Actual Throughput of a Facility**
- **Easily Achieve Customer Service Commitments Cost Effectively with Little “Chaos”**
- **Improved MHE Utilization**



Available as Stand-Alone Solutions or as a Winning Combination for a Competitive Edge

Softeton's WMS and WES solutions are available stand-alone – or for the first time in the industry, deployed together as a powerful Warehouse Management and Execution System.

In stand-alone mode, the WES can work with almost any existing WMS, from ERP to legacy to best-of-breed providers, with flexible integration and process models. This approach can bring new life to aging WMS environments without the need for a full WMS replacement, or can turbocharge a new facility by adding WES to a company's existing WMS.

Deployed together, Softeton's full Warehouse Management and Execution System provides out-of-the-box integration between the two powerful solutions, leveraging the capabilities of both systems to minimize costs and maximize flexibility and throughput.

And as a result of Softeton's advanced Service Oriented Architecture, Softeton WMS or WES systems can easily add functional components from the other module even if deployed as a stand-alone solution. Examples would be adding Softeton's rich cartonization functionality from the WMS into a WES deployment, or direct sub-system integration from the WES into a traditional WMS deployment.

Companies have the option to begin with a WMS deployment, and then add the WES in a second phase for a new round of benefits.

WMS



WES



Shared
Component
Library

WES Simulation [UPS] [KYSPL]

05/23/2019 Hours 08 → 18 Simulate

Time	Pallet Pick (Std: 20 units/Hr)				Case Pick (Std: 90 units/Hr)				Loose Pick (Std: 120 units/Hr)			
	Virtual	Resources	Demand	Completed / Pending / Dem...	Resources	Demand	Completed / Pending / Dem...	Resources	Demand	Completed / Pending / Dem...		
08:00	2	460	28%	1180/1640	2	2070	33%	4128/6198	9	11040	35%	20010/31000
09:00	2	500	30%	1140/1640	2	2250	36%	3948/6198	8	12000	38%	19050/31000
10:00	3	560	34%	1080/1640	3	2520	40%	3678/6198	8	12960	41%	18090/31000
11:00	3	620	37%	1020/1640	3	2790	45%	3408/6198	10	14160	45%	16890/31000
12:00	3											

Softeon Dashboard As Of 2019-Jul-22 13:31:10 US/Eastern

- Open Orders: 8 / 33
- Pending Case Pick Lines: 233 / 370
- Today's Shipment - Orders to Pick: 565
- Orders with Issues: 8 / 33
- LTL Containers Ready for Cart Build: 3 / 7
- Today's Shipped Units (Orders / Lines / Quantity): 471 / 762 / 8763
- Carts in Picking Status: 13 / 13
- SPS Containers Ready for Cart Build: 388 / 431
- Today's Shipped Units (SPS / LTL): 3613 / 5150
- Open Carts in the Queue: 12 / 12
- SPS Containers To Be Packed: 131 / 131
- Alerts: 1
- Replenishment Feasibility: 24 / 80
- Containers Waiting for Replenishment: 25 / 29



Softeon's SOA-Based Platform Allows the WMS and WES to Share Components to Extend Each Solution.

Unequaled Track Record of WMS + WES Success

Softeron's WMS and WES provide a rich and innovative set of capabilities that will drive significant improvement in distribution performance.

But just as important as the deep functionality is our unequaled, 100% track record of WMS/WES deployment success. The reality is that even with WMS improvements over the years, many WMS/WES implementations are still very painful, take too long to deliver results, and never turn out quite right in some cases.

Softeron takes a different approach, with a methodology and mindset laser-focused on success and rapid time to value. We enable customers to achieve WMS/WES deployment success by using an iterative methodology that quickly hones in on your specific operating requirements, in a process managed by seasoned engineers with extensive experience in distribution and WMS/WES deployment – and that approach and experience delivers results.

Those strengths are supported by a differentiated approach to integration with ERP, materials handling and other systems, using powerful integration tools and flexible options for integration to ensure that the job is done right.

All this and more is why you can be certain that with Softeron, your WMS, WES or integrated Warehouse Management and Execution project will be a success – as they have been for all Softeron customers.

WMS



+

WES



Summing It Up

Distribution and order fulfillment excellence is the name of the game today, not only for Omnichannel retailers and consumer goods companies but in third-party logistics, wholesale distribution, high-tech and consumer electronics, service parts, pharmaceuticals/healthcare, and even in many manufacturing and industrial companies.

For decades, an advanced Warehouse Management System has been the key tool to drive improved distribution.

More recently, Warehouse Execution Systems (WES) have added a powerful new set of capabilities beyond what even a tier 1 WMS can deliver in terms of picking optimization, resource management and more.

But WES has been a small, specialized market, with a strong focus on highly automated DCs.

Softeon WES has changed the game. Our solution takes WES to whole new levels, and delivers value in all types of DCs, not just heavily automated ones.

Our WMS and WES can be deployed independently, and even share components to extend the capabilities of each in stand-alone environments.

But the real breakthrough is Softeon bringing WMS and WES together for the first time – a new integrated Warehouse Management and Execution System.

Softeon can help take your distribution performance to new levels –

Let us show you how.





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