

Körber Supply Chain

# K. Motion Warehouse Advantage

Supply chain execution  
for competitive advantage



# Enterprise Warehouse Management

**Distribution management gets more challenging by the day. In today's dynamic business environment, logistics professionals need to implement innovative solutions for complex global supply chains, while reducing operational expenses.**

The uniquely adaptable architecture of K.Motion Warehouse Advantage fast, low-cost business process (workflow) configuration for changing business requirements. This is essential for you to accommodate changing business and customer demands easily and without jeopardizing your operations or budget. The result it provides is the lowest total cost of ownership of any solution in the industry.

## **Growing your bottom line through operational excellence**

By optimizing your workflows, Warehouse Advantage dramatically increases safety and efficiency, while driving down costs. They help you meet and exceed customer expectations through on-time and accurate product delivery.

## **Driving increased productivity**

The advanced functionality of Warehouse Advantage increases your inventory turnover and provides detailed worker accountability, resulting in heightened productivity. Directed, optimized warehouse activities increase cross-docking opportunities, so you can reduce picking time and product touches. You also minimize travel paths through slotting/re-slotting functionality and optimize picking execution with user-configured algorithms. Through an intelligent interface, you can direct put-away to the appropriate bins based on product handling characteristics. And you virtually eliminate the need for non-value-added activities such as manual work verification and shipment audits.



## **Avoiding costly errors**

Through real-time work direction, confirmation and verification, our solution provide your employees and their managers with immediate feedback on work accuracy, and ensure workers are not looking for missing inventory or overloading any given location.

## **Completing shipments on time with over 99% accuracy**

Accurate order picking functionality means you can complete orders on time. Increased fill rates and decreased cycle times allow you to avoid shipping delays and backorders that jeopardize valuable customer relationships. Overall process efficiency also decreases cycle time, resulting in more on-time shipments.

## Optimized warehouse space

Our Warehouse Advantage provides directed stock rotation, intelligent picking directives, automatic consolidation, and cross-docking to maximize the use of valuable warehouse space. The system also directs and optimizes put-away based on accurate, real-time information about the status of bin utilization.

## Reduce shrinkage and spoilage

Through real-time monitoring and first in, first out (FIFO) rotation, you reduce spoilage. In addition, high levels of worker accountability empower you to detect shrinkage problems.

## Increased revenue opportunities

Flexible processes accommodate tailored, value-added service requirements such as kitting, compliance labeling, returns management, promotional material insert handling and warranty tracking.

## Exceeded customer expectations

With the ability to reduce cycle times, stock-outs and backorders, improve order accuracy and on-time shipments, and to offer unique services, you will be able to consistently deliver on and exceed customer promises.

## Maximum ROI in minimum time

With immediate gains in operational efficiencies, you can achieve fast ROI on your warehouse management system. In fact, payback is often less than 12 months.

**“K. Motion Warehouse Advantage has enabled us to be more productive without a huge increase in IT staff. Our growing business is demanding and the Körber solutions give us the agility we require without compromise. It has been the perfect WMS for our fulfilment center and its ever-changing needs.”**

**Carter Lee**  
VP Information Systems  
Overstock.com



The screenshot shows a web-based interface for a Warehouse Management System (WMS). The main content area displays a table titled 'Locations' with the following columns: #, Warehouse ID, Location ID, Type, Status, Picking Time, Pick Area, Go To, and Go To. The table contains 18 rows of data, including locations like 'CC\_L007\_L0K\_P204', 'CONVEYOR', 'CONVEYOR1', and 'FORKLIFT'. A sidebar on the left contains a menu with options like 'Supply Chain Advantage', 'K.Motion Warehouse Advantage', and 'Warehouse Setup'. The top right corner has navigation icons and an 'Administrate' button.

#	Warehouse ID	Location ID	Type	Status	Picking Time	Pick Area	Go To	Go To
1	01	CC_L007_L0K_P204	Staging	Empty			Current Inventory	Pick away Classes Zones
2	01	CC_L007_L0K_LP	Staging	Empty			Current Inventory	Pick away Classes Zones
3	01	CC_L007_L0K_MLP	Staging	Empty			Current Inventory	Pick away Classes Zones
4	01	CONVEYOR	Staging	Empty		PALLETT	Current Inventory	Pick away Classes Zones
5	01	CONVEYOR1	Pickup & Delivery	Empty		TOTE1	Current Inventory	Pick away Classes Zones
6	01	CONVEYOR2	Pickup & Delivery	Empty		TOTE2	Current Inventory	Pick away Classes Zones
7	01	CONVEYOR3	Staging	Empty		PALLETT	Current Inventory	Pick away Classes Zones
8	01	CONVEYOR4	Staging	Empty		PALLETT	Current Inventory	Pick away Classes Zones
9	01	SHRAGE1	Aisle	Empty		PALLETT	Current Inventory	Pick away Classes Zones
10	01	SHRAGE2	Aisle	Empty		PALLETT	Current Inventory	Pick away Classes Zones
11	01	SHRAGE3	Aisle	Empty		PALLETT	Current Inventory	Pick away Classes Zones
12	01	EQUIPMENT	Staging	Empty		PALLETT	Current Inventory	Pick away Classes Zones
13	01	SHRAGE	Forklift	Empty			Current Inventory	Pick away Classes Zones
14	01	SHRAGE2	Forklift	Empty			Current Inventory	Pick away Classes Zones
15	01	SHRAGE1	Forklift	Empty			Current Inventory	Pick away Classes Zones
16	01	SHRAGE2	Forklift	Empty			Current Inventory	Pick away Classes Zones
17	01	SHRAGE1	Forklift	Empty			Current Inventory	Pick away Classes Zones
18	01	SHRAGE2	Forklift	Empty			Current Inventory	Pick away Classes Zones

# K.Motion Warehouse Advantage: comprehensive warehouse management functionality

- **Receiving**
  - ASN receipt
  - Vendor receipt
  - Unknown receipt
  - Production receipt
- **Returns**
  - E-com returns
  - Store returns
  - Production returns
- **Rules-based put-away**
- **Cross-docking**
- **Rules-based directed picking**
  - FEFO, LIFO, LEFO, pick to clean, pick to efficiency
- **Picking**
  - Batch pick
  - Wave pick
  - Zone pick
  - Bulk pick
  - Order pick
  - Progressive pick
  - Putwall pick
  - Voice picking
  - AMR integration
- **Packing**
- **Loading**
- **Loading audit**
- **Shipping**
- **Replenishments**
- **Kitting**
  - Kit component request
  - Kit picking
  - Kit completion
  - Kit teardown
- **Movements**
  - Directed movement
  - Move request
- **Warehouse transfers**
  - Transfer out
  - Transfer in
- **Quality Control**
  - QC hold and release
  - Lot control
- **Administration**
  - Cycle counts
  - Inventory adjustments
  - Physical
- **Advanced warehousing features**
  - Labor management
  - Appointment scheduling/ yard management
  - Slotting optimization
  - Wave planning
  - Load planning
  - Value-added services
  - Optimized container packing
  - Billing management
  - RFID compliance
  - Task interleaving
- **Inventory tracking**
  - Lot control
  - Dynamic tracking of item attributes (i.e. manufacturer date, owner, style, color, size)

## Features

In addition to robust functionality, we offer advanced features to further streamline warehouse operations and reduce costs.

### Container packing

Through our optimized container packing functionality, you can organize how you place items into shipping cartons. This way, you save significant time, packing materials, containers and shipping expenses in the picking and packing of customer orders. You improve efficiency by selecting the number and size of cartons you need based on each item's dimensional cube, orientation restrictions, stacking factors, weight and compatibility with other items.

### Slotting

Our slotting and re-slotting solution optimizes your warehouse storage, productivity and facility throughput due to aspects such as picking velocity and employee utilization. You can integrate it seamlessly with our warehouse management solution to create and maintain an efficient warehouse layout and product placement strategy – reducing travel time, streamlining material handling, and creating space efficiency.



## Wave and load planning

Our wave and load planning capability brings you complete flexibility in releasing work to the floor. It features user-configured views of available orders to plan truckloads or pick waves. This includes assignment of warehouse staging locations, dock doors and shipment drop sequences. By optimizing the variables most critical to your organization, you can substantially decrease cycle times. You can build a wave pick then optimize it for load planning, or vice versa. Once loads or waves are planned, you can completely control pick release, staging and shipping, and manage last-minute changes – all with ease.

## Labor management

Our labor management solution helps you plan, measure and view your labor activities to enhance efficiency. Visibility tools provide real-time data on performance actuals against your targeted KPIs and show you how well you are utilizing both your direct and indirect labor. In this way you can detect inefficiencies, take corrective actions and increase your production levels.

## Warehouse control system management

Our warehouse control system provides centralized management and optimization across all your material handling equipment solutions, determining origin and destination material movements via our automated work queues. It closes the gap between warehouse automation (WA) and subsystem controls, while maintaining connectivity with machine-level controls.

# Adaptable solutions that differentiate your business

While the robust functionality of Warehouse Advantage is designed to meet your immediate operational needs, the best solution must also successfully address your unique and ever-changing business requirements. Rather than requiring you to change your business to fit the software, we are the only supply chain execution company that has created a core architecture through

which you can easily adapt the system to meet your specific needs. All without the use of custom code, in a fraction of the time of conventional systems and at a fraction of the cost. And because all changes are external to the core software, upgrades and support are not compromised. This guarantees low total cost of system ownership.



## Simplified rollout for large and complex environments

- Warehouse Advantage has a proven track record of success in high-volume, complex logistics environments across many industries. This success is made possible by the exceptional scalability and adaptability of the Körber solution architecture.
- The system runs at optimal speed through features such as multithreading, multiprocessing and in-memory applications. Vertical and horizontal scalability are also possible through additional CPUs and features like network load balancing (NLB).
- An easy-to-use and consistent web-based user interface means fewer training hours for your staff.
- Our system fully supports centralized IT and cloud deployments, allowing for easy central activity reporting across all sites.
- Changes to all Körber solutions are made without altering the source code. The result is simplified upgrades and none of the costs and application support burdens that typically accompany source code customization.
- Our adaptability tools allow you to exert complete control over your system and your budgets. You can make your own changes to your system with ease.
- We offer full support for multinational facilities and supply chain processes. Our solution is fully Unicode-enabled, with more than 12 languages making changes to the system.

### Web enablement

Our entire user interface features an easy-to-use and consistent web approach that makes training simple. You can easily configure this web interface to make the content more relevant to your company's specific needs. You can also deploy the system over the web to eliminate the administration and overhead of a traditional "fat client" interface and significantly reduce telecommunications costs. Through a combination of service-oriented architecture and web based reporting, our applications communicate seamlessly with your order management, planning, voice, transportation and external supply chain systems – as well as support partner, supplier, vendor and customer networks.

### Support for international operations

We offer full support for your multinational facilities and supply chain processes. Because we operate in over 65 countries you have the assurance that we will support both your domestic and international operations, and our solutions are fully Unicode-enabled. The base WMS operates in 12 languages: English, German, French, Dutch, Portuguese, Italian, Spanish (Mexico, Chile, Venezuela), Czech, Polish, Russian, simplified Chinese, and Japanese. Live implementations in each of these languages are available as well.

### WMS in the cloud

We also offer our warehouse management software in the cloud, eliminating much of the cost and administration time of installed software. Just like the installed version, our cloud WMS is a best-practice solution for receiving, put-away/

flow-through, inventory management, order processing, replenishment, pick/pack, loading and shipping. You can also build your own industry-leading business processes using our business process configuration tools. You access the WMS via a web browser and gain the functional benefits of new warehouse management software without the up-front software and hardware costs or drain on IT resources.

### System integration

Our leading-edge integration solution links to your existing business systems, ensuring fast, accurate data exchange. Our solution provides seamless enterprise application integration without the need for custom interfaces and third-party integration tools. This powerful solution features standard, certified interfaces to PeopleSoft®, Microsoft® and SAP®. It also offers a wealth of communication mechanisms, including:

- XML
- PeopleSoft® Application Messaging and Message Agent
- SAP® R/3® IDocs, sRFC and BAPI®
- IBM® AS/400® online
- TCP/IP sockets
- ODBC
- Flat file
- IBM® WebSphere® MQ

Warehousing operations gain seamless integration between our WMS and a variety of material handling equipment, such as autonomous mobile robots (AMRs), automated storage and retrieval systems, carousels and conveyors.

# The Körber difference: delivering the lowest total cost of ownership in the industry

We provide a comprehensive suite of supply chain execution solutions that control and optimize the flow of inventory throughout the extended supply chain and through to the end consumer. Our solutions combine the functionality and flexibility you need to meet customer expectations, reduce costs and achieve low total cost of ownership.

## The Körber Approach

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- A robust base application that encapsulates thousands of best practices gleaned from 700+ successful implementations and configured through a selection of switches, parameters and rules
- Standard functionality to meet 95% of your business requirements
- All of our solutions are built on a powerful adaptability platform

## Standard Functionality Provided

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- Every business has unique processes, services and distribution models to maintain and enhance its competitive advantage. No vendor can anticipate all of the pre-configured switches, parameters and rules to support them
- Anything beyond functionality of switches simply requires using Körber's adaptability tools to configure business logic instead of modifying source code. The result is a lower total cost of ownership, faster implementations and ROI, and less risk

## Future System Modifications without Custom Code

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- Adaptability tools empower you to respond quickly and inexpensively to ever-changing customer requirements without custom code
- Lower total cost of ownership
- Ability to respond faster to customer demands

## Platform Upgrade Process

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- Because your business logic is stored separately from the application, it is unaffected by the upgrade process
- Upgrades take hours, not months, significantly reducing costs
- The vast majority of Körber customers upgrade

## Our Competitors' Approach

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- A robust base application that encapsulates thousands of best practices configured through a selection of switches, parameters and rules (varies by competitor)
- Standard functionality to meet 95% of your business requirements

## Standard Functionality Provided

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- No vendor can anticipate all of the pre-configured switches, parameters and rules to support unique processes, services and distribution models
- Anything beyond functionality of switches requires custom code modifications, inefficient operational workarounds, or waiting until a switch appears in later versions of the software. The result is the use of expensive, time-consuming and risky custom code and loss of competitive advantage

## Future System Modifications with Custom Code

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- New business processes often extend beyond pre-determined switches and require custom code
- Excess budgets as all future modifications require expensive custom code; you and your budget are tied to the vendor
- A lack of flexibility to quickly respond to customer demands

## Significant Reapplication of Code Required During Upgrade Process

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- Requires all previous custom code to be re-applied at your expense – nothing carries forward
- Upgrades take months and can cost as much as implementing an entirely new system
- In many cases, vendor forces complex upgrades as a way of generating additional revenue

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**STANDARD FUNCTIONALITY + ADDITIONAL IMPLEMENTATION FUNCTIONALITY  
+ ABILITY TO ADAPT TO CHANGE AFTER IMPLEMENTATION + SYSTEM UPGRADES  
= TOTAL COST OF OWNERSHIP**

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## Serving clients across multiple verticals

Our solutions offer vertical-specific functionality and adaptability to fit different customer requirements across industries including 3PL, automotive, manufacturing, pharmaceuticals, consumer goods, discrete manufacturing, food and beverage, retail/wholesale distribution and industrial production.

Our 4,500+ worldwide clients include Ashley Furniture, Bimbo Bakeries USA, CARQUEST, Circuit City, Commercial Mexicana, Earthbound Farm, Flowers Foods, Fuji Xerox Australia, gm2 Logistics, InBev, Maersk, Overstock.com, PepsiAmericas, Polaroid, Quality Bicycle Products, Singapore Airlines, Uptonor North America and Yamaha Motor Corporation, USA.

## Our client commitment

We believe you should expect – and receive – nothing but the highest quality, not only during the implementation of your project, but also once you are up and running on our WMS.

## Best practices-based implementation

We deliver implementations that are on time, on budget and on target with customer requirements. We do this by making the delivery process predictable, focused and tightly controlled, applying proven best practices through our team of experienced supply chain professionals.

## Ongoing training at Körber University

Körber University prepares your team to operate and administer your WMS on a daily basis, then enhance the system as future needs dictate. You receive instructor-led classroom training and access to internet-based e-learning courses. We can arrange our courses onsite or in the Körber classroom.

## 24/7 worldwide customer support

We offer 24/7 staffed support for your Körber WMS. Our worldwide technical support team is well-informed in the details of your system and ready to assist you in troubleshooting and problem resolution, combining their industry knowledge with the specifics of your application.

## Annual user conference

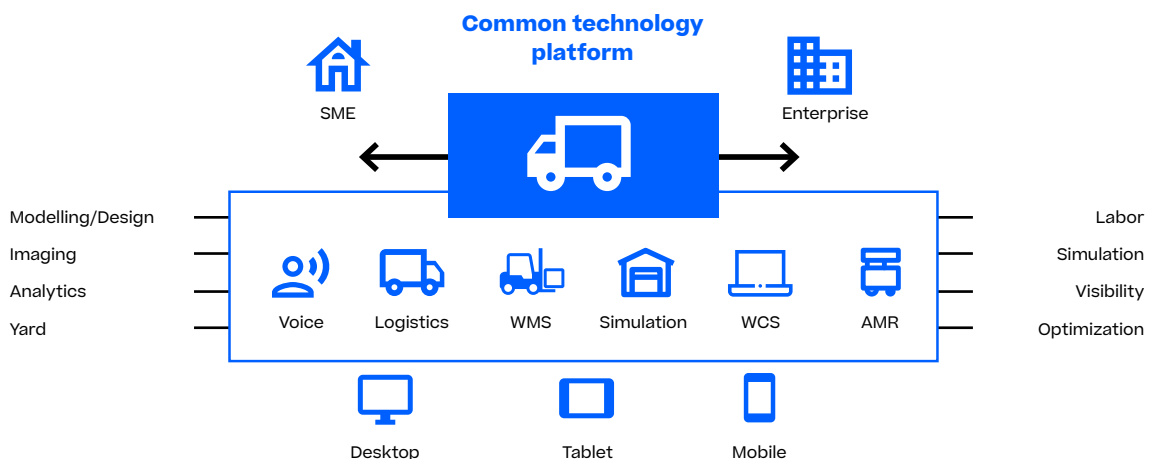
Each year, our clients, partners, employees and industry analysts meet to exchange ideas on the latest warehouse management and supply chain execution trends. Clients learn how to leverage their solutions to increase efficiencies and gain competitive advantage through interactive product feedback sessions, case studies, and working with peers and industry thought leaders in one-on-one and focus group settings.

## Dedicated client management

Our dedicated project teams work with you throughout implementation and then transition your account to worldwide support. Our client management teams work with you from the beginning of the sales cycle through implementation and beyond, to address your questions, concerns and ideas.

## Common technology platform

Through our common technology platform, you can integrate your core processes to gain synergies throughout your operations. Each of our integrated solutions features Körber's trademark robust functionality, cost-effectiveness and the flexibility to quickly adapt to change.





### **Simulation**

Körber's computerized learning and simulation software provides real-time, non-disruptive analysis to optimize existing or greenfield distribution centers. It performs "what-if" analysis to plan future models, optimize site layout and traffic patterns, and adjust workflows and labor values. It then runs simulation analysis of material handling equipment, dwell times, charging activities and more to give you a wide range of planning options.

### **Labor management**

Our labor management solution gives you the ability to plan, measure and view your labor activities to increase efficiency. Visibility tools provide real-time data on performance actuals versus standard KPIs and utilization. Through these tools, you can detect inefficiencies and take the necessary corrective actions.

### **Transportation management**

Whether implemented as a stand-alone system or as part of an integrated solution, our transportation management solution decreases transport planning time and delivers cost savings through order consolidation, load optimization, best-way routing, tendering, tracking and proof of delivery.

### **Delivery management**

Through our last-mile delivery management solutions, you can control your route accounting, load optimization, mobile presales, mobile delivery, business intelligence, vending asset management and field service. In this way, you achieve higher sales, lower your costs and improve margins. You have the flexibility to respond to business demands driven not only by customers, but also by suppliers and retailers.

### **Supply chain visibility**

Our supply chain visibility solution supports your decision-making with real-time visibility into key inventory, order and performance metrics for all your supply chain execution systems.

### **Supply chain event management**

This solution helps you proactively resolve supply chain issues, minimize disruptions, eliminate the need for costly expedited shipping and increase customer satisfaction.

## **Why Körber?**

We are a global provider of supply chain execution software that streamlines the flow of inventory and information from supplier to store shelf. Listed in the Inc. 5000 Fastest-Growing Companies for three years running, we employ over 440 team members worldwide, and support more than 4500 customers across 65 countries. These range from small-to-medium businesses to global enterprises.

Our functionally-rich and highly adaptable end-to-end solutions help users achieve new levels of supply chain responsiveness, performance and profitability – from the warehouse to the storefront, from the desktop to the driver's cab. Our suite of warehousing, transportation, distribution, mobile delivery and retail solutions allow users to seamlessly drive growth, customer satisfaction and revenue by delivering goods faster and more profitably.

When you deploy our exceptional warehouse management systems as the cornerstone of your supply chain execution solution, you gain an adaptable architecture that delivers fast, low-cost business process configuration for all your business needs.

**Learn more about how K.Motion Warehouse Advantage solutions can benefit your operation here:**

