

Infor Warehouse Management - 4000

TABLE OF CONTENTS

PAGE

Introduction	3
Solution Overview	5
Strategic Direction	11
Solution Enhancements.....	12
Customer Support and Maintenance Policies	14
Summary	15

INTRODUCTION

As a leader in providing solutions to select vertical markets in the manufacturing and distribution industries, as well as to select non-manufacturing vertical markets including retail, third-party logistics, and transportation, Infor® strives to keep our customers competitive in a constantly changing world.

This Statement of Direction for Infor Warehouse Management - 4000 (WM - 4000) is an overview of the major enhancements planned for future releases. The information provided is at a high level and is intended to assist customers in their selection of Infor products, as well as in strategic planning for their internal system development. The content does not include a complete listing of all new capabilities. Rather, it describes current plans, which are subject to revision or change without prior notice.

More information regarding each enhancement and the underlying features and functions can be obtained through Infor Global Support.

Infor customer-first strategy

To serve the needs of its 70,000 customers worldwide, Infor has a customer-first philosophy built on a powerful combination of people, products, and processes. Infor experts understand the needs of customers and, with Infor's extensive portfolio of products, they can deliver business value that customers need. Infor's streamlined processes ensure that this value is delivered in ways that customers will benefit from quickly. This commitment and customer focus forms the foundation of the Infor product development strategy.

The Infor customer-first product strategy is a comprehensive approach based on three key objectives: enriching the value of our customers' current investment in Infor solutions, extending the core ERP applications with best-in-class strategic solutions, and evolving the Infor product line to produce next-generation solutions.

Infor Open SOA

At the core of Infor's enrich, extend, and evolve product strategy is Infor Open Service-Oriented Architecture (SOA), which is redefining the way software is used to achieve faster and greater business value. With Infor Open SOA, companies can more easily adapt to change because their software can be reconfigured by a business analyst without having to change core packaged software.

Infor Open SOA is being integrated into all aspects of Infor's solutions, providing the blueprint for delivering next-generation business value from every new product development initiative. Infor Open SOA enables businesses of all sizes to derive SOA benefits with reduced complexity. It can play a major role in helping companies of all sizes grow and become more competitive.

Service-enabling Infor applications allows companies to derive value by plugging in new modules more easily or writing more specific functionality such as that focused on vertical industry requirements. This could be adding a new tax module to meet a new local legal requirement or, at a higher level, it could be a more substantial change such as adding a new warehouse management solution to an existing IT environment. Infor will use service-enablement to provide out-of-the-box integrations that are more flexible and reduce deployment costs.

A full description of Infor's SOA strategy is available in our whitepaper, which can be downloaded at www.infor.com.

SOLUTION OVERVIEW

Infor WM - 4000 provides an enterprise with immediate and accurate visibility into inventory availability, enabling it to better serve the customer through providing flexible tracking of inventory levels and locations, and by notifying the enterprise when more product is needed. It provides the business with the ability to anticipate product demand and create a plan that most effectively meets the demand by making sure that the right products are available at the right time. The result is improved revenue, customer satisfaction, and customer loyalty.

Infor WM - 4000 is engineered to reduce direct operating costs and improve asset utilization, while providing flexibility and cost-based optimization services. It is a software solution that enables businesses to maximize their product placement strategies, establish business rules to intelligently prioritize tasks, implement fair and meaningful productivity standards and objectives, and increase efficiency of all logistics operations. This solution enables cost-optimized, closed-loop business process management and planning, including layout and product positioning improvements, task management, basic time and attendance, and assignment tracking and monitoring.

Key features include:

Flexible data handling. Infor WM - 4000 incorporates flexible data handling to help companies adapt to different or changing business conditions. These features include: multiple data views, flexible query capabilities, multiple inventory ownership, alternate SKU cross-references, multiple pack sizes per SKU, user definable and multiple concurrent units of measure, and custom fields. Unique lottable capabilities allow products to be handled according to specific characteristics including various code dates, coolers, sizes, assortments, and version and model numbers.

User configurability. This solution is unique in providing a series of predefined strategies for putaway, allocation, and picking that can be implemented based on the user's needs. Menus, radio frequency (RF) screen configurations, security levels, and other parameters can all be configured to meet the needs of individual users. The built-in application programming interface (API) architecture allows users to configure workflow and to integrate warehouse management operations with other business processes, managers, and external enterprise application integration (EAI) process management engines. Over 1,600 APIs enable external applications to control warehouse functions directly via an interface layer, and open WM - 4000 to external programs that complement its functionality.

Multiple deployment options. Because WM - 4000 is database and operating system independent, this solution can be deployed in any size facility. It is highly scaleable and can operate on devices ranging from hand-held to mainframe computers. It can be deployed on LAN, WAN, and Internet environments. It is fully internationalized and translated into 23 major languages.

Complete integration suite. This solution has integrated, real-time radio frequency (RF) capabilities. It includes a set of integration products that speeds integration to host applications, ERP systems, and material-handling equipment. The events-based architecture supports a broad range of formats including messaging and EAI-based integration. These events notify external systems about what is going on in the operations and are extremely useful in workflow management. The events also enable the easier development of true components that complement this solution.

Infor WM - 4000 3.10

With version 3.10 of Infor WM - 4000, clients saw the addition of many important features:

Advanced shipment notice (ASN) paper-based putaway. These changes provide the capability of creating paper-based putaways when receiving via the workstation ASN/receipt screen.

Wave planning enhancements. The current product uses wave planning to create a wave for multiple order processing. An enhancement has been added to the wave screen to allow it to display summary information about the wave, and to allow the user to enter the eaches/cases/pallets picked per hour and number of workers available. The system then calculates the number of hours' worth of work on the wave and displays this to the user. Also, the user can enter the eaches/cases/pallets per hour and the number of hours available for the wave, and the system will calculate the number of workers needed.

Check digit. Prior to the release of 3.10, Infor WM - 4000 did not allow for verification of inventory movement with anything other than a location. With the release of 3.10, the warehouse can now choose from three methods of verification: 1) location, 2) check digit, and 3) no verification.

Putaway enhancements. Enhancements have been made to both RF-assisted and RF-directed putaway to allow the warehouse to scan up to five pallets to be put away. Enhancements to the putaway strategies allow the use of stack limits, footprints, and maximum pallets of one commodity in a zone.

Quantity verification during RF picking. The purpose of this modification is to allow users of Infor WM - 4000 to verify the quantity that is in a location once the picker has completed the pick. The verification is based on parameters set on the zone of the location in which the pick is occurring.

Cycle count. WM - 4000 users now can:

- Merge capabilities for RF-assisted and RF-directed (Task Manager) cycle counts to provide consistent functionality. The main difference is whether users are directed to locations through tasks or manually walk to a specified area to record counts.
- Provide counts by location and SKU instead of requiring all counts to be at the SKU, location, movable unit, and lot level. The system will compare the quantity counted against system inventory for the SKU/location to determine if there is a discrepancy. If multiple movable units or lots exist in the location, additional information will be required from the counter to accurately post the count.
- Provide selection parameters to release counts by storer, SKU, zone, area, level, or location. Users can select a range of locations to be counted.

Physical inventory. The following is a summary of changes:

- The RF physical entry process has been modified to allow the user to enter the location and/or the SKU instead of the full information. The system will compare the quantity counted against system inventory for the SKU/location to determine if there is a discrepancy. If multiple movable units or lots exist in the location, additional information will be required from the counter to accurately post the count.
- Users now have the ability to perform RF-directed physical inventory counts.
- The physical parameters screen has been changed to allow the user to enter an area, zone, section, and/or location range to count along with the existing physical parameters. The physical parameters screen has two new right-mouse-click options. The first option is to place all of the locations selected to count on hold by creating an inventory hold record, using a specific inventory hold code. If some of the locations are allocated, an error message is returned to inform the user. The second option is to remove the hold created for the physical inventory.
- The unallocation screen has been modified to allow the user to search by area, zone, section, and location so that product can be unallocated during the physical process.
- The system has been modified to prevent moves, putaway, replenishments, transfers, allocation, or pre-allocation to any location that has been placed on hold for physical inventory.

Labor management. The new labor management functionality for WM - 4000 consists of two separate components. “Planned Assignments” allows picking tasks to be combined into logical groups (assignments) for improved warehouse efficiency. “Labor Monitoring” provides the framework for collecting data about completed work units for each WM - 4000 user and provides a set of screens and reports for presenting this information. A warehouse has the ability to implement either one or both components.

Voice picking (Vocollect® Voice-Directed Distribution™). A real-time interface with Vocollect’s voice-directed distribution system has been added to the 3.10 release.

Outbound label enhancements. While in the process of adding RFID, we added several outbound label enhancements, such as the ability to create case-level labels during the allocation process. Much of the functionality around label creation is not RFID specific and can be used by non-RFID customers.

Baan® IVc4 interface. As a part of creating the interface between Infor WM - 4000 and Baan IVc4, several functional changes were made to the applications to allow the interface to function smoothly.

Optional components

Optional WM - 4000 components include the following:

Value. Support value-added and work-order activities, such as single and multi-station kitting, packaging and labeling operations of existing products, and complex final assembly operations for customer-specific products.

Crossdocking and Flow-thru. Integrate the tasks of fulfillment and replenishment into a single process to increase inventory velocity and reduce product handling.

Billing. Use this component to capture and invoice charges for storage and labor, enabling accurate and timely customer billing.

Complementary products

Infor customers can extend the value of their WM - 4000 application by adding these complementary products:

RFID Foundation. This WM - 4000 component is a standards-based solution targeting multiple industries. It provides value to the customer by meeting industry mandates, reducing development and deployment costs, providing flexible and configurable solutions, and delivering advanced business process simulation tools and a flexible integration framework for integrated solutions. It provides advanced edge device management capabilities, edge business process management capabilities, standards support (Gen 2, ALE, etc.), and an extensive framework for host integration.

Infor RFID Foundation supports key RFID requirements such as compliance labeling, electronic product code (EPC) data management, advanced packaging, and integration with host systems. It provides packaged integration with Infor Warehouse Management solutions for business processes such as shipping and receiving.

Yard Management. This component can provide visibility into yard operations and help your company work faster and smarter by ensuring that available product is en route to the customer, not sitting on the dock or in the trailer.

Key features include:

- Inventory visibility and availability. Increase inventory availability by capturing trailer contents down to the SKU level. Fill orders with inventory from the yard rather than short shipping.
- Real-time, enterprise-wide visibility of trucks, personnel, and gate movements in a single place. This allows corporate-level yard reporting and trailer tracking.
- Trailer status management and alerts. Access real-time information related to refrigerated trailer fuel consumption and receive critical alerts when fuel is low. Infor Yard Management also helps you track trailer maintenance records.
- Intelligent task assignment. While other systems use a rudimentary FIFO model to allocate work assignments, Infor Yard Management uses intelligent task assignment methods. It evaluates all tasks that need to be completed and prioritizes them based on user-defined criteria.
- System-directed task management. Using trailer profiles and proximity calculations, Infor Yard Management helps you match trailers with move tasks. Tasks also can be linked together to create task dependencies that further automate the task management process, or tasks can be generated manually.
- RF enabled. Once tasks are created, they can be sent to drivers via RF technology. This eliminates costly verbal communication errors.
- Carrier and lease-term monitoring. Infor Yard Management provides an automated method for tracking the amount of time trucks spend in the yard. It also captures and tracks short-term leases on vendor trucks.

- System-directed putaway and trailer tracking. Infor Yard Management directs trailers to the optimal location within the yard and tracks all trailer movements, from the time they enter the yard, until the time they leave.
- Appointment scheduling. Intelligently manage both inbound and outbound dock door activities with Infor Yard Management's web-based portal. With capabilities well beyond the basic appointment scheduling functions, this solution can optimally match and schedule loads based on load characteristics, data center capacities, and door and equipment constraints.

Event Management for Supply Chain. Infor Event Management, part of Infor Open SOA's Business Process Management Services, allows you to proactively manage transportation exceptions and handle a multitude of event types including delayed shipments, time-outs, carrier-rejected shipments, ASN mismatches, payment mismatches, damaged goods, shipment refusals, missing documents, shipments held in customs, etc. It includes web-based tracking, collaboration, and closed-loop resolution of detected events; analysis and trending of event history to allow continuous process improvement; and cross-system monitoring and data integration.

Infor Event Management uses real-time monitoring agents to detect operational issues, such as orders that are at risk of shipping late or inventory that is about to run out, and to immediately alert all relevant participants in the supply chain community. Through automated escalation and web-based tracking, and collaboration and closed-loop control, members of the extended supply chain are able to resolve operational issues before they result in excess cost or lost revenue.

Infor Event Management has four components:

1. Alerts: real-time detection and notification
2. Collaborate: web-based tracking, collaboration, analysis, and closed-loop control
3. Adapters: rapid connection to existing transactional systems
4. Web Services: SOAP/XML API layer to access all SCEM functionality

Infor Event Management for Supply Chain 1.0 will provide WM - 4000 customers with the necessary real-time events notification and monitors to help them proactively adapt to today's demand-driven supply chain. Some notification examples include:

- ASN (e.g., ASN/receipt approaching or past scheduled date)
- Appointments (e.g., carrier issue, late vendor)
- Receiving (e.g., vendor performance, units received/time period)
- Putaway (e.g., delayed putaway, putaway productivity)
- Picking (e.g., pick variance, order not picked)
- Shipping (e.g., order not shipped by scheduled date, late delivery)
- Inventory/replenishment (e.g., product reorder alert, product on hold)

Warehouse Management - Optimize (WM Optimize). This component is designed to improve upon the functionality of traditional slotting and uses a cost-based analysis function to enable continuous improvement. The optimization process feeds information back into the system, which then adjusts and improves operations on an ongoing basis. This provides for much faster realization of savings, long-term maintenance of those savings, and continuous cost improvement.

WM Optimize also takes into account user-defined attributes such as:

- Product groups. Also known as commodity or product families, these identify where in the warehouse product is placed. These groups may be based on weight, height, and commonality such as hazardous, crushable, security item, etc.
- Movement. This is based on sales history or forecasts for a given product.
- Maximum balance-on-hand (BOH) inventory. Quantities are gathered from sales history in relationship to forecast activities.

Corporate Performance Management. Corporate performance management (CPM) solutions will provide WM - 4000 customers with the ability to track key performance indicators and give them the analytic capabilities needed to analyze their business and gain a competitive edge in their industry. Infor offers a full suite of CPM solutions, including Business Intelligence for Supply Chain, which will become available to our WM - 4000 customers in the future. A new release of Business Intelligence for Supply Chain consists of 25 reports, including:

- Cycle Count Adjustment Discrepancy Analysis
- Inventory Adjustment Analysis
- Putaway Productivity Analysis
- Replenishment Productivity Analysis
- Shipping Accuracy Analysis
- Completed Assignments for Associates
- Details for Non-selection Assignment
- Fork Performance for Associates
- Available Fork Work by Section

STRATEGIC DIRECTION

We believe that in today's demand-driven business environment, organizations must shift from a "sell what we have" approach to a "respond to what customers want" approach if they want to outpace the competition. Making that shift successfully means that enterprises must leverage current customer intelligence and implement best business practices.

Infor's strategy is to provide a global supply chain management (SCM) solution that provides integrated process capabilities in key Infor verticals across all supply chain constituents.

Our global capabilities, customer base, solutions, people, and support infrastructure allow Infor to provide a best-in-class, best-of-breed solution that improves demand management and supply chain execution. Our demand management solutions can increase order accuracy, improve forecast accuracy, and reduce inventory, while our supply chain execution solutions can provide supply chain network visibility, performance and event management, and best-in-class fulfillment and logistics execution capabilities.

Our SCM development strategy is to provide a predictable flow of major releases and maintenance releases for our products, including Infor WM - 4000, thus expanding existing functionality and responding to customer enhancement requests. With our Infor development resources, we will move toward achieving service-oriented architecture capabilities through providing large-grained SCM components and service functions, synchronizing to current releases and modernization initiatives, and providing a simplified migration path.

Current Infor WM - 4000 customers will benefit from an advanced, modernized high-volume warehouse management solution that can be used across multiple geographical regions. In addition, customers could expand to a more comprehensive supply chain management solution with access to other Infor solutions such as Transportation Management, Customer Relationship Management, Supplier Relationship Management, and Advanced Planning (demand management).

As a current WM - 4000 user, you can be confident that all new functionality developed by Infor will integrate with existing versions of the solution. Through ongoing modernization releases, Infor will deliver even more advanced capabilities as large elements of the Infor legacy code base are replaced with new Infor Open SOA services. As of Release 4.0, Infor WM - 4000 will adopt the underlying Infor Open SOA capabilities so that the Warehouse Management - 4000 application can be fully operated and integrated with any other Infor Open Architecture component or implementation. Infor will be responsive to evolving and emerging industry requirements through the addition of new or extended services and solution components.

SOLUTION ENHANCEMENTS

The next generation of Warehouse Management systems from Infor starts with the migration of WM - 4000 3.10 from the current Sun® UDS middleware to a fully J2EE™-compliant back-end business layer and a brand new native web-user interface. The first release, Infor Warehouse Management 4.0, will be the start of the converged Warehouse Management strategy, where we bring the best features forward from all Warehouse Management applications into the new Infor Open SOA platform and use business process orchestration and design techniques.

The Infor Warehouse Management 4.0 release will offer functional enhancements in the areas of wave planning. Wave Planning, developed as a component in the go-forward SOA technology platform, can work with all Warehouse Management applications from Infor. This is the first of many components that will add significant functional additions to the Infor Supply Chain Management suite of applications.

The Infor Warehouse Management 4.1 release will include the new full web-based user interface together with additional functionality in the areas:

- CPM integration
- Warehouse Management - Optimize integration
- ERP_{LN} and ERP_{LX} integration
- Additional functionality will include:
 - Accept multiple lots per detail line
 - Minimum ship percentage (“ship complete”)
 - Order cancellation
 - Lot number enhancements
 - Inventory holds
 - Kitting
 - New events and notes
 - Outbound inspection
 - Receiving enhancements
 - Addition of a new business data entity

As a separate development stream, we will be developing additional new stand-alone J2EE-compliant components that will work seamlessly with future releases of Infor Warehouse Management. These include a more advanced Wave Planning and a new Labor Forecasting component.

Wave Planning and Scheduling. Wave Planning helps the user decide which orders to release and in what sequence. The solution provides order filtering capabilities to determine whether to release for allocation and/or shipment. It also provides a process for monitoring and managing the waves. Event notification provides the user with messages, e-mails, or pages when user-defined events occur. A scheduler function can be used to automatically manage some of the wave planning processes. In the wave status process, there is a function that can track how much work remains in terms of hours or resources.

Labor Forecasting. Labor Forecasting consists of two elements:

- Productivity history and reporting
- Forecasting and planning

The extensive productivity history and reporting capability provided by Infor Labor Productivity will support the following activities:

- Analyzing and summarizing production information to provide productivity reporting on recent activities to facilitate tactical decisions and on past activities. This information should be available to the user, based on the specified time span and period increment. For example, the user could request information for a year by week, week by day, day by hour, etc. This could facilitate trend analysis or help the enterprise determine potential need for overtime or additional staffing.
- Applying user-defined algorithms to historical data to support planning and forecasting.

The forecasting and planning element provides a basis for planning needed resources within a facility and includes three main components:

- Estimating current operational volumes and resource requirements
- Estimating the volumes and resource requirements for the immediate future—normally a day or less, based on a knowledge of the available workload
- Using historical data and expected growth rates to estimate required resources for the more distant future

Additionally, the Infor WM - 4000 project will be expanded in the future to include integration with other Infor products such as Yard Management, WM Optimize, and the Transportation Management suite to offer a seamless suite of supply chain applications with a common user interface.

Infor WM - 4000 is important to the long-term Infor Supply Chain Management strategy and will play an important role in Infor's future convergence strategy. This strategy uses a "best-of-feature" approach that allows Infor to offer all clients the most robust warehouse management "go forward" solution in the market.

INFOR CUSTOMER SUPPORT AND MAINTENANCE POLICIES

The mission of Infor Global Support is to provide support excellence with continuous improvement resulting in the highest levels of customer satisfaction. We achieve this by delivering value, responsiveness, consistency, and quality through our efficient product support centers and expert support staff, each of whom has the training, knowledge, and field experience required to understand your business requirements and resolve any issues in a timely manner.

Our focus is on anticipating and exceeding customer expectations, providing a consistent customer experience across all of our support centers, and maintaining an engaged environment where both our employees and our customers have a sense of empowerment.

For employees, that means a total, knowledge-based dedication to resolving customers' issues, which in turn translates to loyalty, confidence, and pride on the part of customers—the conviction that Infor Global Support is reliable, fair, and respectful in handling support and maintenance issues and administering policies.

As part of our commitment, we will continue to support all versions of WM - 4000 for as long as customers require (and it is technically feasible).

To support the migration of customers to Infor WM - 4000, services, tooling, and content have been developed to decrease the costs and improve the quality of migrations. In addition, services have been developed to support the process for a successful migration.

For more information about our policies, please contact Infor Global Support.

SUMMARY

Through our customer-first product strategy, Infor is committed to providing value to Infor WM - 4000 customers. Our goal is to enable customers to perform better in their business. We will respond to both customer requests and market demands as we continue to enrich Infor WM - 4000, and will provide additional options for customers to extend and expand their business systems to address new requirements through Infor's strategic solutions.

About Infor

Infor delivers fully integrated enterprise solutions for a wide range of industries, as well as best-in-class, stand-alone products that address the essential challenges its customers face in areas such as enterprise resource planning, supply chain planning and execution, customer and supplier relationship management, asset management, product lifecycle management, financial and performance management, and business intelligence. With 8,100 employees and offices in over 100 countries, Infor provides enterprise solutions to more than 70,000 customers. For additional information, visit www.infor.com.



www.infor.com

13560 Morris Road
Suite 4100
Alpharetta, GA 30004

678 393 5000 IPhone
678 393 5001 IFax

Copyright © 2006 Infor Global Solutions GmbH and/or its affiliates and subsidiaries. All rights reserved. The word and design marks set forth herein are trademarks and/or registered trademarks of Infor Global Solutions GmbH and/or its affiliates and subsidiaries. All rights reserved. All other trademarks listed herein are the property of their respective owners.

INFSD_IWM4GEENODD_0906-1