



SAVANT WMS OVERVIEW

We believe the Savant Warehouse Management System developed by Savant Software, Inc. can meet your organization's needs. This data sheet provides specific comments and recommendations on how Savant will solve your business problems. We have always felt that the safest and best software system solution for companies today is to embrace packages using industry-standard tools while having an open architecture and built-in flexibility.

Industry Standard Tools

While there are many opponents to the Microsoft dominance, the simple truth is that Microsoft technology is entrenched in the business technology market space. Therefore, it is critical that today's business application utilize technology that can easily interface into the Microsoft standard. Savant has been developed with industry-standard tools, including Microsoft's Visual Basic, Crystal Reports, Label Matrix, and SQL database technology. Savant is compliant with the latest Microsoft standards including .NET.

Open Architecture

Savant offers tremendous advantages by optimizing the open architectures of industry standards, including Windows based workstations and servers, and SQL databases. Compared to other warehousing products that rely heavily on proprietary development tools, non-SQL architectures, and cross-platform concessions, Savant offers your organization a warehousing and inventory management system with uncompromised flexibility and accessibility.

Error Reduction

Inventory and shipping errors have the greatest impact on operational costs. Savant dramatically reduces costly errors through extensive audit trails, system guidance and intervention, product verification, and the elimination of paperwork. The end result is that customers are sent the correct products, the first time.

Improved Inventory Accuracy

Although there are a number of ways to measure inventory accuracy, typically organizations without automation can only account for 78% of their inventory. This 22% inaccuracy results in increased inventory levels (safety stock), poor productivity, reduced customer service, and higher back order conditions all of which cost the company money. Automated warehousing systems using barcode and RF technologies can improve inventory accuracy to 98%.

Reduced Time for Physical Inventories

Automating the physical inventory process greatly reduces inventory times and costs. Many of our customers see inventory times drop from days to hours.

Cycle Counting

Cycle counting is an obvious evolution of the automated warehousing system. It is less expensive than physical inventories. It is also less disruptive to distribution operations, enhances customer service, improves inventory accuracy and is widely accepted and preferred by auditors.

Improved Warehouse Productivity

The Savant system allows you to move more inventory faster. This enables your business to reduce overhead, cut costs and provide a sound path for future growth.

EDI Interface

Many industries have aggressively moved towards Electronic Data Interchange (EDI). The Savant system will provide UCC128 compliant labeling, the ability to transmit and

receive ASN's and the ability to link with EDI services. As new technologies like XML gain in popularity and create new communication standards, Savant will continue to evolve to meet these new business requirements.

Reporting

One of the primary purposes of a warehousing system is to generate meaningful and timely inventory and productivity reports. Savant is clearly a leader in the ability to produce these standard and customizable reports.

Client/Server and SQL Technology

While other warehousing systems ignore SQL's open architecture advantages, Savant offers you the benefits of SQL integration and open access to your company's most critical information. With Savant, you get a powerful, enterprise-wide warehousing system that provides such features as:

- High-speed transaction processing
- Fault tolerance and data integrity
- User-definable security
- System scalability
- Modular flexibility

Savant is modularized, allowing you to pick only those modules that meet your unique business needs. These modules include;

System Administration (Required)

The System Administration module is the focal point of the Savant system. It is required for all of the other modules to operate. The module allows the system administrator to set up the warehouse. Warehouse locations, zone definitions, units of measure, rack types, security, and printers are all defined by this module. Savant can group locations into a variety of zone structures to accommodate put-away, inventory count and picking operations.

- Powerful Flexibility in Warehouse Setup
- Unlimited Number of Storage Levels per Product

- System-Wide Aliases to fit your Unique Business and Industry Requirements
- Detailed Transaction, Audit, and Productivity Tracking
- Dynamic Inquiry Screens
- Robust Security Access
- True 32 bit Client/Server Architecture
- Supports Multiple Database Architectures
- Supports Multiple RF Hardware Platforms Including Symbol Technologies and Zebra
- Utilizes Industry Standard Tools Like Crystal Reports and Label Matrix

Receiving

The Receiving module allows inventory to be received into the warehouse, where it is uniquely identified with a pallet, carton or if desired a product serial number. This information is then used for product location and movement in the other Savant modules. Receiving can optionally tie into existing Purchase Order systems in order to validate items received. The module provides exception reporting and allows overrides for variances from ordered quantities.

Another feature of the Receiving module is directed put-aways. The system administrator has the ability to identify areas for product location. Fast moving items are automatically placed closest to the shipping area while slower products can be stored in the back of the warehouse. This feature improves product picking times and reduces warehouse traffic.

The warehouse supervisor can also set up user defined, receipt condition codes. The warehouse operator can assign these condition codes to product as it is received. These codes enable the warehouse supervisor to track and manage the on-going performance of vendors and carriers.

- Validates Receipts to POs
- Allow Receipts with or without a PO
- Multiple Receivers on One Order
- Capture Receipt Condition Codes
- Receipt by Vendor Case Number
- Allow Inventory to be Available for Shipping or Placed "On Hold"
- Capture Code Date information at Receipt for use in product rotation
- Capture Lot and/or Serial numbers at Receipt
- Capture of Weights (catchweights) by pallet or by case
- Real-Time Generation of Labels at Receiving for Pallet, Case, Each, etc.
- UPC/SSC Verification and Labeling
- UCC128 AI standard label verification

- Supports Vendor or In-House Part Numbers / Cross References
- Inbound Container Tracking System w/Landed Cost
- Cross Docking
- Directed Put-Away Methodologies
- Inbound ASN
- Incoming QA Hold Function
- Robust RMA Processing

Quality Assurance

The Quality Assurance module is designed to collect data, set acceptance standards for product receipt, and monitor vendor performance. The module is typically used as an intermediary process between receiving and product put-away.

The warehouse supervisor assigns flags to certain product ID's and determines the percentage of product to be inspected. As inventory is received the flags notify the warehouse operator that product can be put-away or sent to the QA location. Once in the QA area the warehouse operator is asked to perform QA checks on the product. As an example, if product is damaged it can then be moved to a restoration location or a return-to-vendor location. Inventory that is acceptable can be put-away.

The Quality Assurance module also performs statistical analysis on product, vendor and carrier performance through a series of reports and graphs. Your organization can now use accurate and reliable data to communicate performance issues to your entire vendor network.

- Inspection Instructions for each Product
- Ability to Place Product on Hold if it Fails the Inspection Process
- User Defined Hold Codes
- Ability to Send to Repair
- Statistical Analysis on Product, Vendor and Carrier Compliance
- Inspectors can Modify Carton and/or Pallet Contents and Generate Variances

Inventory Module

The Inventory module accurately tracks inventory throughout the entire warehouse. Inventory can only be placed in the warehouse when it is assigned to a unique warehouse location. Savant also tracks the movement of product from one location to the next. The end result of these tracking techniques is that inventory can be located quickly and efficiently.

Savant supports both full physical inventory and cycle counting. Inventory can be counted using wireless scanning devices. The information obtained by the scanner is updated to the Savant inventory files immediately, reflecting the proper count. Lots, serial numbers and/or CodeDates can also be updated as part of the cycle count, if desired.

Inquiry screens and reports are another important part of this module. Both the system administrator and the warehouse operator have access to detailed inventory information. These screens enable the user to verify inventory at specific locations, find inventory, review inventory allocations, and monitor code dates on perishable goods.

- Inventory Locator System
- Unlimited Levels of Storage
- Ability to Reconfigure Inventory into Different Storage Levels
- ABC Classification
- Supports Physical Inventories
- Supports Variable Cycle Counting Methods
- Hold Status Assignment
- User Defined Adjustment Codes
- Dedicated, Non-Dedicated and Random Bin Locations
- Mass Storage Support and Configuration
- Automatic Replenishment of Picking Locations
- Slot/Bin Recommendations
- Manages the Movement of Inventory Throughout the Warehouse
- Powerful Inventory Inquiry Capabilities
- BOM/Kitting
- Lot, Serial and CodeDate Tracking
- Recall Reporting by Product and Lot Number
- Automatic placing of expired or 'near' expired product on hold so that it will not ship.

Order Fulfillment

The Order Fulfillment module utilizes wireless scanners to direct the picking of product. Using the information from the Inventory and Receiving modules, it performs the necessary product rotation that allows pickers to select the correct product for each order. All of this is accomplished in a paperless picking environment.

Primary pick locations can be replenished using either min/max levels or by actual order allocations. The location inventory is updated immediately as the pick takes place. Outbound pallets or cartons can be labeled with the UCC128 standard shipping

container label, or the UCC128 Application Identifier label for industry compliance and customer service purposes.

Savant supports wave picking, zone picking, and single order picking. Wave picking is the ability to pick multiple orders as the picker moves through the warehouse. Picking patterns can be established by the system administrator to direct the flow of traffic during picking. Zone picking is the ability to split an order to allow multiple people to pick it in different zones within the warehouse. Orders can also be picked one at a time, and can be labeled for shipping, palletized, or picked into boxes, depending on the workflow desired by the system administrator. Orders can be assigned to a specific picker, or can be chosen to the next picker available. These features are specifically designed to increase warehouse productivity and eliminate unnecessary warehouse traffic.

- Automatic Release to Picking
- Manual Release to Picking (Wave Release and Order Assignment to Pickers)
- Automated Verification of Products Picked
- Picked Products are Removed from Inventory
- Enhanced Order Management Capabilities
- Multiple inventory allocation rules
- Ability to specify minimum code date requirements per Customer and Product
- Automatic Replenishments based on Order Demand and/or Min/Max qty
- Pick to Pack
- Bulk Picking
- Wave Picking
- Zone Picking
- Picking Patterns
- Cross Docking
- Catchweights can be recorded per case or per pallet
- Capture / Verification of Lots and/or Serial Numbers at picking
- Capture / Verification of Code Dates at picking
- Lots, serial numbers and code dates are attached to order history for sales reporting and recall purposes
- Customer Compliant Labeling, Packing Lists and Shipping Labels
- Outbound ASN
- Integration into Warehouse Optimization Equipment

Packing/Box Build

The Packing module takes your shipping requirements to the next level. This module verifies products that have been picked for an order and tracks the shipping carton that

each product is placed. Distribution companies that pick in totes and place product in shipping cartons or containers will find this module to be invaluable to their operations.

The module also incorporates a unique box building matrix that helps the packer select the appropriate sized box or boxes for shipping. Product dimensions are entered in the inventory screen. The box build matrix eliminates certain sized boxes based on the dimensions of the products picked. The box building matrix can be used prior to shipping to facilitate picking into the shipping container.

- User Defined Quality Control Checks
- QC Based on Weight Variance
- QC based on Percentage of Shipments
- Scanning Verification for Each Packed Box
- Generation of UCC128 Shipping Container Labels
- Box Building Matrix
- Calculate Shipping Cartons per Order
- Calculate Shipping Cartons Prior to Picking
- Generate Shipping Labels Prior to Picking

Dispatch and Shipping Manifest

The Savant Shipping Manifest System integrates seamlessly into the Savant Warehouse Management System. The manifest system calculates freight costs, updates the order, generates the carrier label, and prints the appropriate shipping manifest. Savant supports UPS, FedEx, DHL, USPS, California Overnight and local carriers as well as LTLs and FTL's.

The manifest system was designed for optimum flexibility and improved shipping productivity. Weights can be captured automatically using Savant's unique scale interface. The operator can also scan or key the order number to determine the desired carrier, carrier type, and important customer information. The operator has the ability to compare carrier rates and select the most cost-effective carrier.

The shipping manifest system uses industry standard tools for generating system reports and labels. These tools enable the Savant customer to quickly change existing reports and labels or to add new ones with minimal expense. Labels are generated real-time and are guaranteed by Savant to be carrier compliant. The system also supports the generation of electronic manifests.

- Automatic Rate Calculation and Order Update
- Ability to Compare Rates of Multiple Carriers

- Generic Scale Interface
- Ability to Create Paper and Electronic Manifests
- Ability to Create Carrier Compliant Labels
- Minimal Data Entry Using User Defined Defaults
- Optional Direct Interface into Sales Order System
- Dispatch/Truck Routing
- LTL Rate Calculation
- Straight Bill of Lading
- VICS Bill of Lading
- Ability to print outbound UCC128 Application Identifier labels

3rd Party Logistics

The Savant 3rd Party Logistics module allows 3rd party distributors to effectively manage their customer's inventory and expedite orders more efficiently. Savant also provides robust billing capabilities.

- Automatic Order Inputs
- Activity Based Billing by Customer ID, Product ID and Warehouse
- Multiple Warehouse Billing
- Multiple Shipping Accounts per Customer
- Assign Ownership to Inventory
- Reporting by Inventory, Owner and/or Depositor
- Billing Categories and Rates by Owner and Site
- Billing by Storage and/or Transactional Rates
- Invoice Calculation at Various Intervals
- Custom Pick Tickets, Packing Slips and Shipping Labels per Owner and/or Depositor

Labor Mgmt

The Labor Management module captures information about each worker, work area, and warehouse, and provides reports showing the productivity for the day as a percent of standard. This information enables managers/supervisors to identify low performing individuals and work areas so that their performance can be improved or the standard revised due to some previously unidentified problem. Combining this with other measures, such as accuracy and quality, will help provide a better overall picture of the warehouse performance.

- Able to load warehouse labor standards
- Wave creation resource requirements based upon labor standards
- Alerts can be set based upon resource and task performance thresholds to standards
- Current resource utilization and standard measurements available

Trailer Builder

The Trailer Build module provides a systematic approach to a common problem faced by many distribution centers:

- What size trailer do I need for the orders and route assignments?
- How can I pick the items so that they are loaded efficiently?
- How can I reduce congestion on the dock?

The Trailer Build module works in conjunction with the Wave Management module to ensure a balanced flow of product through the warehouse.

- Order / line prioritization to minimize dock congestion
- Flexible Trailer configurations
- Trailer utilization can be reviewed prior to release of work
- Orders are prioritized based upon load sequences
- Trailer order assignments can be reviewed and modified as necessary from the Trailer management screen.

Wave Mgmt

With features such as Workflow Management and Simulation Modeling, the Savant WMS Wave Management module will help you improve productivity and reduce labor costs by enabling your managers and supervisors to match the workforce to the workload, real-time, throughout the day. Easy to read display screens help the decision makers see when everything is flowing smoothly or if delays are being caused by improper manpower allocations to various zones.

- Manual or Dynamic Wave
- Balanced Workflow
- Metrics Monitoring
- Customized Order Routing
- Workflow monitoring
- Resource allocation monitoring
- Immediate and live view of current wave processing and resource utilization

Slotting

The Savant Slotting module (WarehouseVision) integrates seamlessly into the Savant Warehouse Management System. The maintenance of a warehouse and its stocking strategy is one of the most difficult tasks confronting a facility today. In addition to maintaining inventory placement compatible with the inbound and outbound processes, it is also important to constantly strive for maximized cube utilization within the facility. Without proper warehouse management, a cycle of inefficiency is inevitable. Items become misplaced, wasting valuable warehouse cube space, and resulting in fewer or improper items in prime picking areas. This cycle, if left unchanged, will begin to have a direct impact on a facility's inbound and outbound operations.

The slotting module provides a systematic approach to the implementation and maintenance of a slotting strategy.

- Greenfield analysis
- Review storage requirements of new product lines
- Recommended actions can be manually or dynamically created
- System monitor provides for continuous and schedule maintenance
 - Reviews warehouse status on a continuous basis
 - Provides nightly reporting
 - Provides alert generation
 - Automatically generates recommended tasks
- Dashboard Reporting
- Simplified user interface
- Recommendations can be reviewed or set up to dynamically adjust
- Promotional and seasonal recommendations prioritized based upon targeted dates.
- Virtually all slotting strategies can be accommodated.

Simulation Modeling

The Savant Simulation Modeling module enables the user to determine if the day could have been more productive. It allows the day's real data to be used to develop "what if" scenarios to determine more information about the causes of delays in processing; like processing all one-line orders first or assigning them to one individual in a zone. Information obtained from this module will enable different strategies to be incorporated which will improve productivity, accuracy, and quality; or validate that the current strategies are working as expected.

- Simulation model is dynamically created without having to learn complicated simulation languages or algorithms.
- Provides a 3D graphical representation of data
- Various 'what if' scenarios can be executed using based Model
- Provides a "bird's eye" view of warehouse activity
- Able to view 'live' or current operations
- Full simulation license available to allow the user to create additional models

Container Tracking with Landed Cost

The Savant Warehouse Management System Container Tracking Module works with Savant's Receiving module to generate intransit information for international containers that will be arriving at the warehouse. The module allows the purchasing department to group lines from various PO's into containers based on information provided by the shipping party. The warehouse receiving crew can then receive the goods from the container as a single unit, rather than having to split up the goods manually into multiple receipts by PO. The module also enables you to track the vessel, voyage, and various dates associated with the movement of the container from the time it ships to the time it is returned to the harbor as empty. The Inbound Shipment process allows you to enter container information into Savant with Estimated Receipt dates for the products on that container. You can track the PO's involved within each container load, and use this information to validate the receiving process. As various activities are performed, the status of the inbound shipment is updated, and reports can be run based on the various milestone dates to see which containers are expected to arrive, and which containers are empty and waiting to return to the harbor.

- Ability to assign multiple PO's and quantities within PO's to a container
- Assign PO's from multiple vendors to a container
- Multiple container types – Ocean, Air Freight, etc
- Optional landed cost calculations
- Cost Categories can be defined by Item number
- Cost Categories can be defined in total by container
- Costs spread by volume (cube), weight or value
- Track progress of Container as it is delivered to harbor, to customs and to warehouse
- Receipts scanned by Container and spread to multiple PO's and lines

ASN Module (Updating)

Work In Progress (WIP) with Time Clock (Updating)

Value Added Services Module (VAS) (Updating)

BI DashBoards (Updating)