What is Slotting?

Slotting is the placement of product within a warehouse that optimizes the balance between warehouse utilization and operations.
Why do I need a Slotting Strategy?

A slotting strategy is developed to ensure that the WMS and inbound/outbound processes are working in unison to ensure efficient operations and warehouse utilization

- How the WMS handles forward pick locations
- Directed putaway / receiving
- Picking assignments
- Order Releasing
Why do I need Slotting?

- The building appears to be full. Product is being stored in aisles
- There is no place to receive stock into
- Sales have increased
- Changes in product lines
- You have a large number of replenishments each day
- You’re out of pallet locations
- You’re having to do excessive over time to meet delivery promises
- Pressure of buildings to carry more and more product for delivery promises
What are the costs of not having a slotting strategy?

In some warehouses, productivity can be impacted by 20% or more due to poor slotting:

- Receiving hours begin to increase:
  - Having to ‘search’ for places to put stock
  - Having to store pallets in aisles or dock space
  - Trailer turn-around time increases
  - Handling of New Items

- Outbound hours increase:
  - Having to work around the stock in the aisles or on the dock
  - The number of replenishments increase
  - Congestion in the aisles and the dock

- Utilizing off site storage or trailers being in your yard longer

- And once the warehouse gets congested, it is too late.
WarehouseVision provides a bridge between existing WMS capabilities and the reality of warehouse operations management.

As the cost to build new facilities rise, there is a growing pressure on warehouse operations to efficiently manage ever growing and changing inventories and inventory levels.

Warehouse Slotting:
• Optimize SKU placement within an existing facility
• Layout new facilities with greater efficiency
• Discover additional space in existing locations
• Network Capacity Analysis
Most widely installed slotting solution

✓ Over 6 million SKUs processed
✓ Over 1500 warehouses processed
✓ Covering a wide variety of market types; from food and beverage to pharmaceutical and hardware

✓ Only slotting solution with complete integration into the WMS platform
✓ Only slotting solution with true simulation modeling
✓ Only slotting solution with enhanced processing
✓ True configurable system monitor
Warehouse Vision Installations

Installations in:
✓ North America
✓ Canada
✓ Central America
✓ South America
Warehouse Vision Customers
WarehouseVision Suite of Products

Modular. Use only the features you want.

- **WVPlanner**
  - Development of Slotting Strategy
  - Greenfield Analysis

- **WVAuditor**
  - Implementation of a Slotting Strategy
  - New Item Processing

- **iCAM**
  - Summary and Detail Network Utilization

- **DCProfiler**
  - ‘Air-traffic control’ for the warehouse
  - Dock and Resource Management

- **System Monitor**
  - Background monitoring for optimization opportunities

- **Simulation**
  - True simulation modeling

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- **Parcel Audit**
  - Interactive Capacity Modeling

- **WarehouseVision**
  - Warehouse Profiling and Product Slotting

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Most slotting solutions work in a vacuum.

Slotting should be incorporated into the normal warehouse operations as much as possible.

So that the WMS and Slotting strategies work in unison as oppose to working in silos.
Warehouse Vision Product Placement

It's about improving space utilization and improving productivity

All processes in the warehouse are considered when determining product placement

Proprietary Adaptive Slotting Algorithm

- **WORKS IN CONJUNCTION WITH THE WMS**
- Does not work in a vacuum
- Considers all aspects of warehouse operations
- Takes WMS configuration into consideration
- Open architecture: can be configured to unique warehouse requirements

GOAL is to optimize the activity per SQFT of the warehouse

- USPD (units sold per day)
- Activity
  - Number of picks or orders per day
- Cubic Velocity
  - Item cube x USPD
- Activity per SQ. FT.
  - Activity / Warehouse SQFT allotment required for the item
**WarehouseVision** Unique Features

- Emphasis on integrating the Warehouse/Plant profiling function into the normal plant operations as much as possible
  - Modular in design
  - Minimal user interface
  - User defined “shortcuts”

- Only Warehouse Profiling software that can be truly integrated into your existing WMS or ERP system
  - Ability to monitor both inbound and outbound activities
  - Ability to create stored procedures to interface and/or update to the host WMS or ERP system

- System Monitor that provides ongoing monitoring of inbound and outbound activities without user intervention
  - Ability to send updates to host system on an ongoing basis
  - Ability run nightly reports or processing
  - Ability to send emails or alerts

- Ability to dynamically create true base simulation models without the need for costly simulation modeling
  - Provides true simulation views not just graphical representation of static information
  - Ability to be upgraded to more complex modeling requirements
**WarehouseVision** Unique Features

- Full integration to MWS if desired
- Directed putaway and New Item processing
- Replenishment Generation
- Provides a Health rating for the warehouse
- Open Architecture
- Can provide network capacity analysis
- True simulation modeling utilizing the Flexsim simulation engine.
Examples of Dynamic Processing

- **WarehouseVision** can dynamically review placement whenever locations become empty
  - When locations go empty, due to picking, is the item in the correct location? If not send the replenishment quantity to the desirable location

- **WarehouseVision** can review all pending receipts for new items
  - Preassign the item(s) to a preferred location prior to receipt so that the receiving of the product can be performed as a normal SKU.

- **WarehouseVision** can review all pending receipts for ALL items
  - If the item is about to be received, is it going to the preferred location? If not, assign the item to a preferred location and direct receipts to the new location
Forward Pick Locations

• Review the number of replenishments per day

• Set the trigger point to a time supply (1 day?) instead of a 20% for all items

  • You are doing replenishments on items you don’t need to.
Floor Stack Locations

- If the product cannot be stacked high, maybe move that product to racking.
- Major factor for placement is activity per warehouse SQ. FT. for the product.
Why WarehouseVision?

- Open architecture enables you to configure the software to any requirement
- Served multiple industries, food and beverage/industrial/healthcare/parcel/DOD/manufacturing
- Able to dynamically update WMS tables as client requires
- Over 120 years of combined warehouse operational experience behind the software
- The goal of WarehouseVision is to incorporate the adherence of a slotting strategy into the normal day-to-day operations of picking and receiving.
- Ease of use.
- WarehouseVision when combined with DC Profiler provides not just a slotting solution, but can manage resources, dock doors and workflow
- DC Profiler puts intelligence into wave releasing. ‘Air-Traffic Control’ for the warehouse.
- The Auditor module provides real time insight into the heartbeat of your warehouse and can make dynamic changes to the warehouse based on the opportunity
- WarehouseVision combined w/ the iCam module can provide an entire network overview
- WarehouseVision is partnered with FlexSim allowing us to dynamically build a warehouse simulation model
- Most installations exceeding 1500
WarehouseVision Successes

• Warehouse capacity decreased from 140% to approximately 70%

• Dramatically grew productivity while simultaneously adding 40,000 + SKU’s into a Distribution Center with no need to expand facility

• Successful design and implementation of over 1500 Facilities (5K to 1M+ Sq/Ft) (10K to 500K SKU’s)
Avoid unnecessary spending by delaying or eliminating the need for new facility construction or rental

Significant labor savings through improved productivity

Reduced order cycle times

Numerous features help decrease safety risks thus reducing lost time and OSHA risks

Improved customer satisfaction yields repeat business
“In my review of commercially available slotting solutions, *WarehouseVision* was the clear winner in terms of capabilities and functionality.

Unfortunately, many times slotting solutions have become ‘shelfware’ because of inability to solve customer requirements.

The real proof of success is whether slotting software is really being used to provide ongoing results. *WarehouseVision*’s functionality is truly helping customers save money in terms of capacity, productivity and safety.”
“After years of manual slotting and using some of the most expensive slotting software on the market, I discovered WarehouseVision. It is more powerful than even the most expensive solutions and IS ACTUALLY IN DAILY USE! Too often, even the ‘leading’ slotting solutions just don’t get fully implemented because they fall short of expectations.”
Architecture

- WarehouseVision can utilize SQL, ORACLE or MSAccess database
- WarehouseVision can reside on a server or standalone pc
- WarehouseVision can receive data either through flat file (csv), text files, excel, idocs or through a direct odbc connection to the WMS database.
Thank You!

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