A Triple Crown Event
Distribution, Technology & Supply Chain

The Foodservice Distribution Conference & Expo
Slotting Techniques
Discussion Points

- Roles and Responsibilities
- Goals of Effective Slotting
- Slotting Tool
- Physical Layout and Rack Types
- Summary
Roles and Responsibilities

- VP of Operations
- Slot Coordinator
- Supervision
- Warehouse Associates
- Report On Progress
- Align Incentives
Goals of Effective Slotting

**Decrease Operating Costs**
- Reduce breakdown at dock
- Reduce pallet putaways
- Improve selector productivity
- Reduce replenishments
- Reduce Congestion

**Improve Level of Customer Service**
- Reduce short labels
  - Fewer replenishments
  - Slotting tied to demand
  - More product in pick location
- Eliminate merge on dock
- Inventory accuracy impact

**Improved Storage Capacity**
- Increase forward pick locations
  - Improved utilization of whse. cube
  - Utilize carton flow
  - Utilize pallet flow
  - Utilize pallet pushback
  - Slotting optimization
Slotting Best Practices

- Heavy to light
- Fast to slow
- Item characteristics
- Dense vs Non Dense
- Define cubic mvmt by slot type
- Forklift Assignments

- Align slot capacities and buying multiples
- Slotting Tool will improve your efficiencies
- Measure success vs expectations
- Invest in Slot Coordinator
- Create necessary slot types in desired areas of warehouse
Slotting Tool
A Slotting Analysis tool is a PRO-ACTIVE Reporting tool that allows for:

- Viewing items not in the optimal slot type and or location based on historical and or future demand
- Visibility of line and cubic volume in each warehouse area
- Daily performance tracking of replenishments, slot movements, pallet breakdown, travel-time, etc...
- Daily visibility of obsolete items, high volume items, and slot analysis

Consistent use of the tool and execution of its recommendations will produce the following:

✓ Reduction of overall daily replenishments
✓ Increased warehouse cube utilization
✓ Increased pick and replenishment efficiencies
✓ Overall reduction in travel time
✓ Reduction in Dock Labor through elimination of unnecessary pallet builds
✓ Improved reaction time to increased demand
✓ Reduction of operator time associated with the analysis and execution of a slot-move
Physical Layout and Rack Types

Case Study
### Key Findings

- All items are not created equal
- Warehouse efficiencies require optimal facility layouts and slotting
- Storage methodology does not differentiate between high and low velocity items
- 80/20 rule applies to most facilities - yet facility is not designed/slotted accordingly
- Empty space is extremely expensive
- Travel is extremely expensive

### Benefits of Improved Slotting

- Increased pick facings
- Reduced Replenishments
- Reduced Pick Path
- Reduce Putaways
- Increased productivity due to improvement in slotting
- Increases line item capacity
- Cost Avoidance (Expansion)
- Re-racking is inexpensive compared to expansion
Current Layout - Example

18 Aisles Of Selection
New Layout - Example

Note: 33% reduction in Pick Aisles (18 to 12)

Equates to a 20% Reduction in selection time

Note: Replenishment Only Aisles

Pick Aisle 12
Pick Aisle 11
Pick Aisle 10
Pick Aisle 9
Pick Aisle 8
Pick Aisle 7
Pick Aisle 6
Pick Aisle 5
Pick Aisle 4
Pick Aisle 3
Replenishment
Replenishment
Replenishment
Pick Aisle 1
Chemical
Chemical
Double Deep Pallet Flow

- Pick Only Aisle
- Two Pallets in Forward Pick Location for High Velocity Items
- Significant reduction in need for Replenishment
- Eliminates need for product consolidation during replenishment process

- Replenishment Only Aisle
- Eliminates congestion caused by lift operator and selector “competing” for same space
• Define roles and responsibilities
• Define expectations and MEASURE against them
• Align Departmental goals and incentives
• Invest in slotting tool to optimize facility
• Slot products based on velocity/density
• Racks have bolts in them so they can be changed
Thank You! Have a great session at the 2007 Distribution Conference!

Stephen Higgs
Director, Warehouse Operations
SYSCO Corporation
A Triple Crown Event
DISTRIBUTION, TECHNOLOGY & SUPPLY CHAIN

The Foodservice Distribution
CONFERENCE & EXPO
Best Practices in Racking & Warehouse Slotting Logic

Dan Peckskamp
Vice President Operations
IFDA 2007 Slotting Presentation

• Product Slotting Consideration
  – Labor expense
    • Receiving
    • Shipping.
  – Service level impact.
  – Damage.
# Inbound Direct Labor Expense

<table>
<thead>
<tr>
<th>Standard Expectation</th>
<th>Receiving Clerk</th>
<th>Put Away Operator</th>
<th>Replenishment Operator</th>
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</thead>
<tbody>
<tr>
<td>Pallet Per Hour</td>
<td>60</td>
<td>25</td>
<td>15</td>
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<tr>
<td>Pallet Per Day (8 Hr)</td>
<td>480</td>
<td>200</td>
<td>120</td>
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<tr>
<td>Pallet Per Week</td>
<td>2400</td>
<td>1000</td>
<td>600</td>
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<td>Labor Rate Per Hour</td>
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<tr>
<td>$</td>
<td>20.00</td>
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</tbody>
</table>

| Cost Per Pallet      | $ 0.33         | $ 0.80           | $ 1.33                 | $ 2.47                 |
## Labor Cost Per Case

### Receiving Opportunity

<table>
<thead>
<tr>
<th>Cost Per Pallet</th>
<th>$ 2.47</th>
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</thead>
</table>

| Case Per Pallet | 10     | 20     | 40     | 55     |

| Cost Per cast to Pick Slot | $ 0.247 | $ 0.123 | $ 0.062 | $ 0.045 |

**Additional Costs**
- Indirect labor 15%
- Support Labor 15%
- Cost of pallet.
Day Labor Key Slotting Considerations

- Cube Movement Key Measurement
- Require multiple size slot locations.
- Consistent slot size by aisle.
- Target a week velocity in pick locations.
- Two days capacity minimum high volume.
- Travel time verse congestion.
- Maximize cases per pallet, super slots.
Outbound Labor Cost

- Selection Labor Cost
  - Case - 22% = Handling
  - Item - 25%
  - Travel - 25% = 8 Aisles
  - Constant - 8%
Night Labor Key Consideration

- **Stacking/Selection**
  - Case weight & dimension – 6/10 or 4/1 Gallon
  - Limit handling of selection cases.
- **Cube Movement Velocity**
  - Weeks targeted inventory.
  - Limit replenishment during selection shift.
- **Congestion.**
  - Spread out volume items.
- **Travel Time**
  - Major account minimize aisles traveled.
- **Narrow Aisle Racking Slow Volume Pick**
  - Minimize volume, two or less per week.
Slotting Coordinator Activities
Selection Errors & Product Damage

• Chart errors/damage on a warehouse layout by pick location.
• Plastic coat a warehouse layout with slots numbers identified.
• Apply color coded indicators to slot locations to identify patterns.
• Investigate product to look for like items and venerable locations.
• Down arrows on the rack labels. Not mandated.
Racking Considerations

- Structural steel racking
- Push back racking high volume.
- 93” load beams for selective rack.
- 42” upright for selective rack.
- 108” load beams in narrow pick areas.
- 36” uprights in the narrow aisle areas.