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Orderpicking Trends for Increased Productivity

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ORDER PICKING SOLUTIONS

Objective:

To develop an understanding of ***Current Trends*** and warehouse / distribution ***Orderpicking Applications*** in order to make best use of unique and effective value-added solutions to meet your or your customer's goals.

To help ***qualify*** the type of orderpicking methodologies to employ, and to ***quantify*** the solution(s) that will allow for the highest return on your investment.

ORDERPICKING: THE CHALLENGES

Most complex and oftentimes chaotic process in warehousing due to change; from product movement to SKU fluctuations.

Most labor intensive process in warehousing

Costly - errors in picking, fleet size, manpower, incidental damages

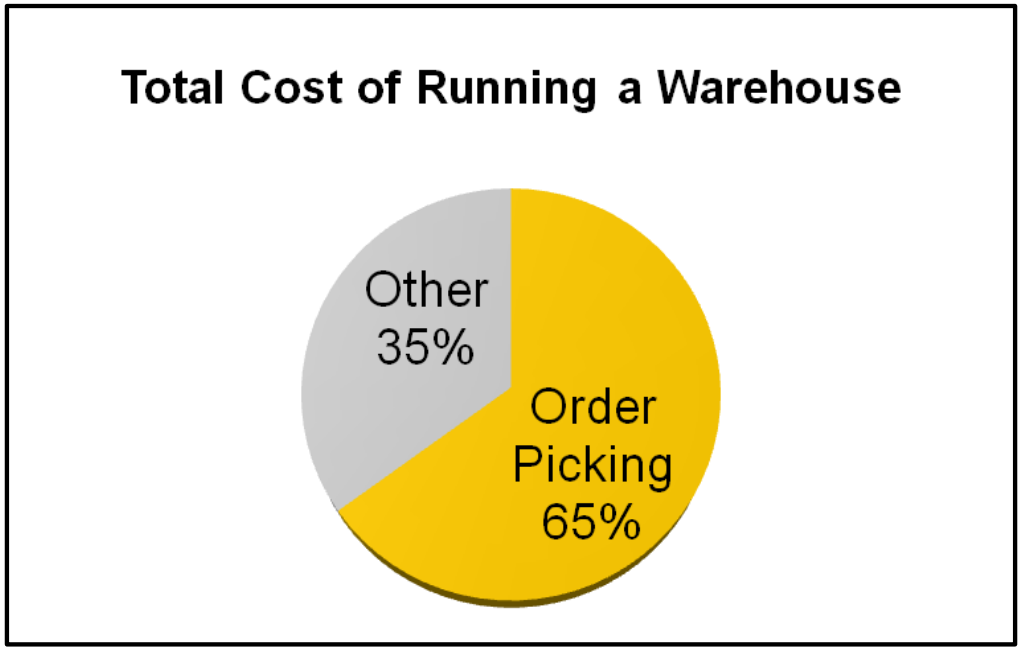
What is most important to customers?

Metric	Rank
On Time Shipments	1
Order Picking Accuracy	2
Fill Rate	3
Average Warehouse Capacity	4

WERC Study

Why Do Customers Care About Order Picking?

- Because it's expensive!



WERC Study

What Are Your Customer's "Key" Objectives?

- Productivity
- Reduced Cycle Time
- Accuracy

What Order Picking Type Is Most Common?

Respondents By DC Operation		
Order Picking Type	**% of Total**	**% Cases vs. Pallet**
Broken Case Picking	37.0%	**69.60%**
Full Case Picking	32.6%	
Partial Pallet Picking	12.1%	**30.40%**
Full Pallet Picking	18.3%	

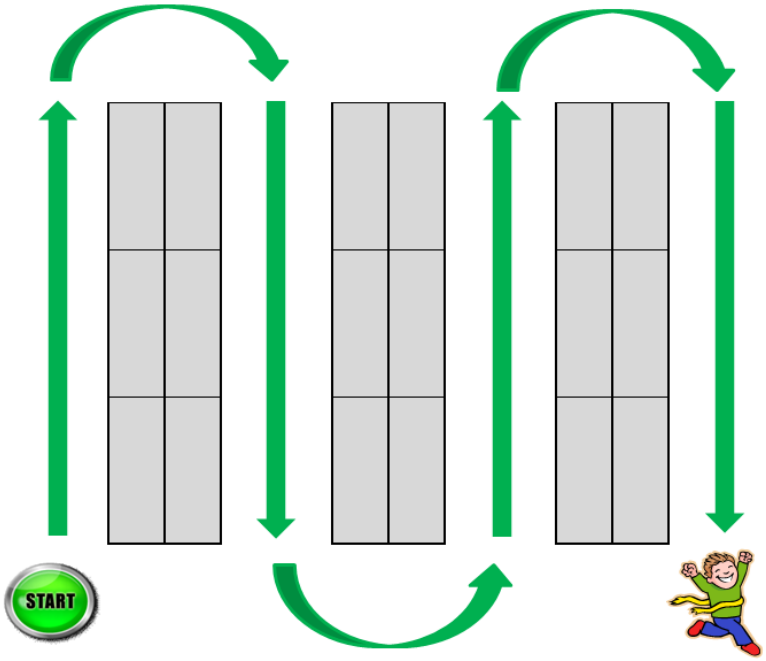
WERC Study

Full / partial pallet picking continues to decrease.

Picking Methods

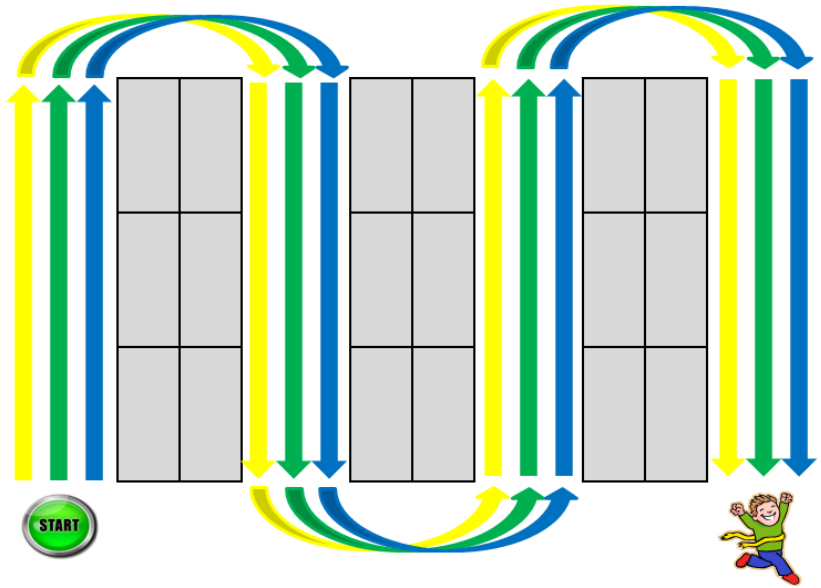
Basic Order Picking

- Product is stored on fixed locations on static shelving or pallet racks
- Orders are picked one at a time



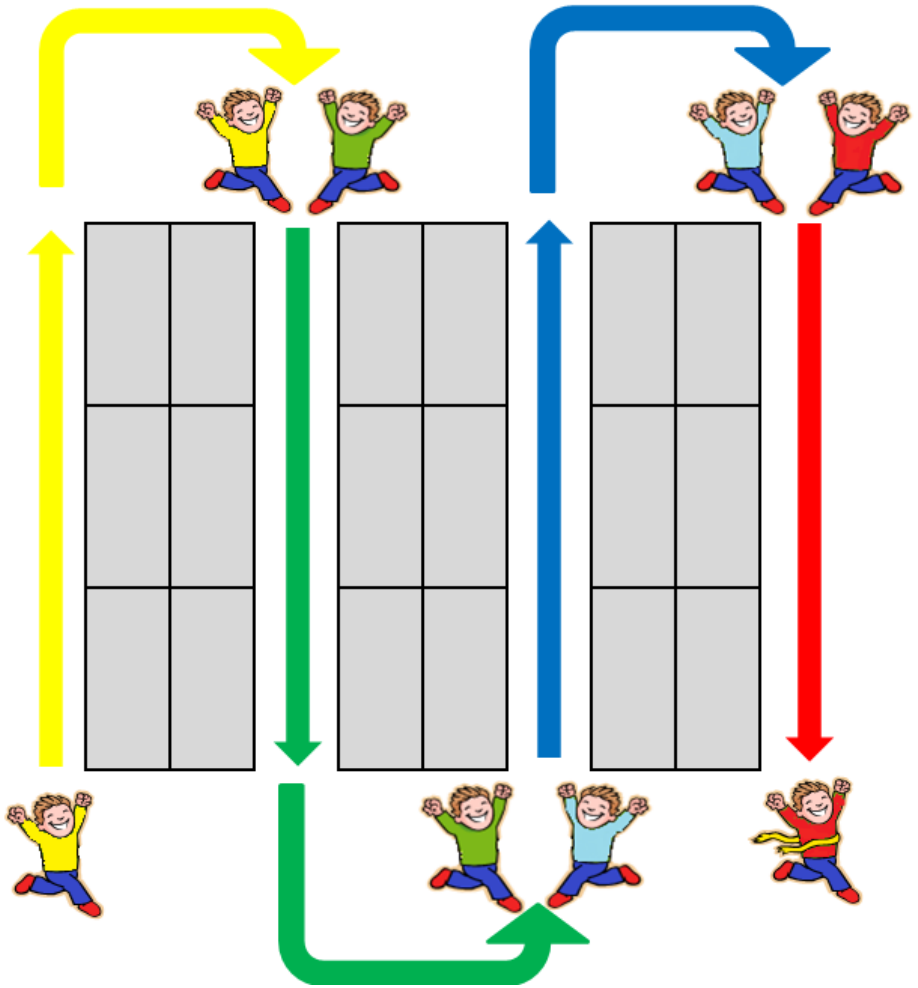
Batch Picking

- Multiple orders are grouped into small batches
- The order picker can use a multi-tiered picking cart to keep orders separate
- Batch sizes can run from 4 to 12 orders



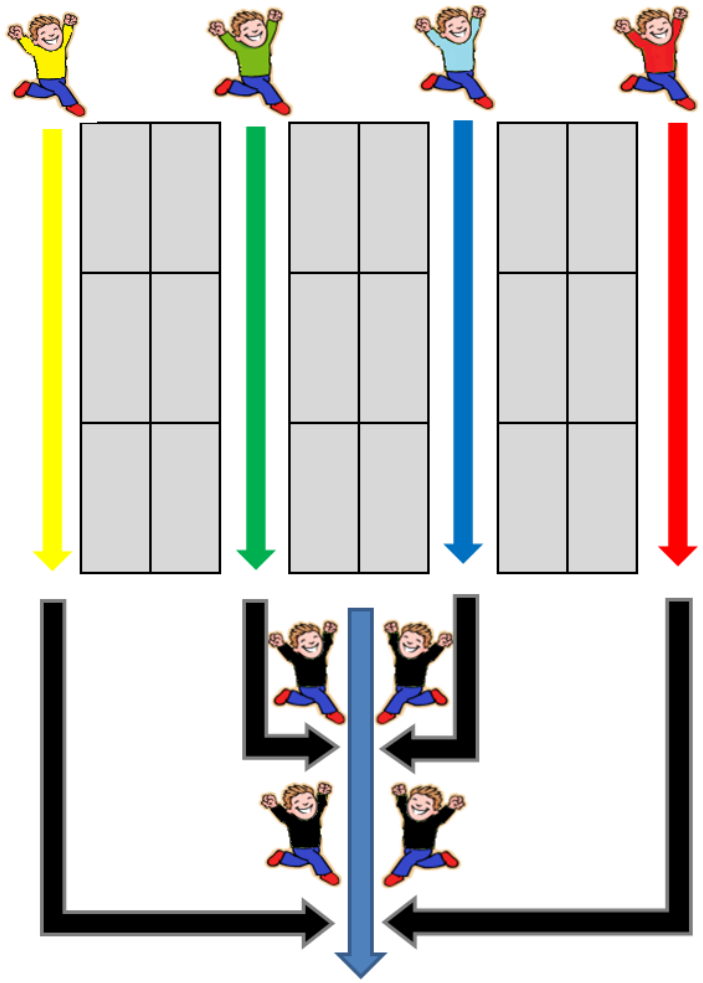
Zone Picking

- Also known as "pick-and-pass“
- Order picking version of the assembly line.
- Picking area is broken up into individual pick zones

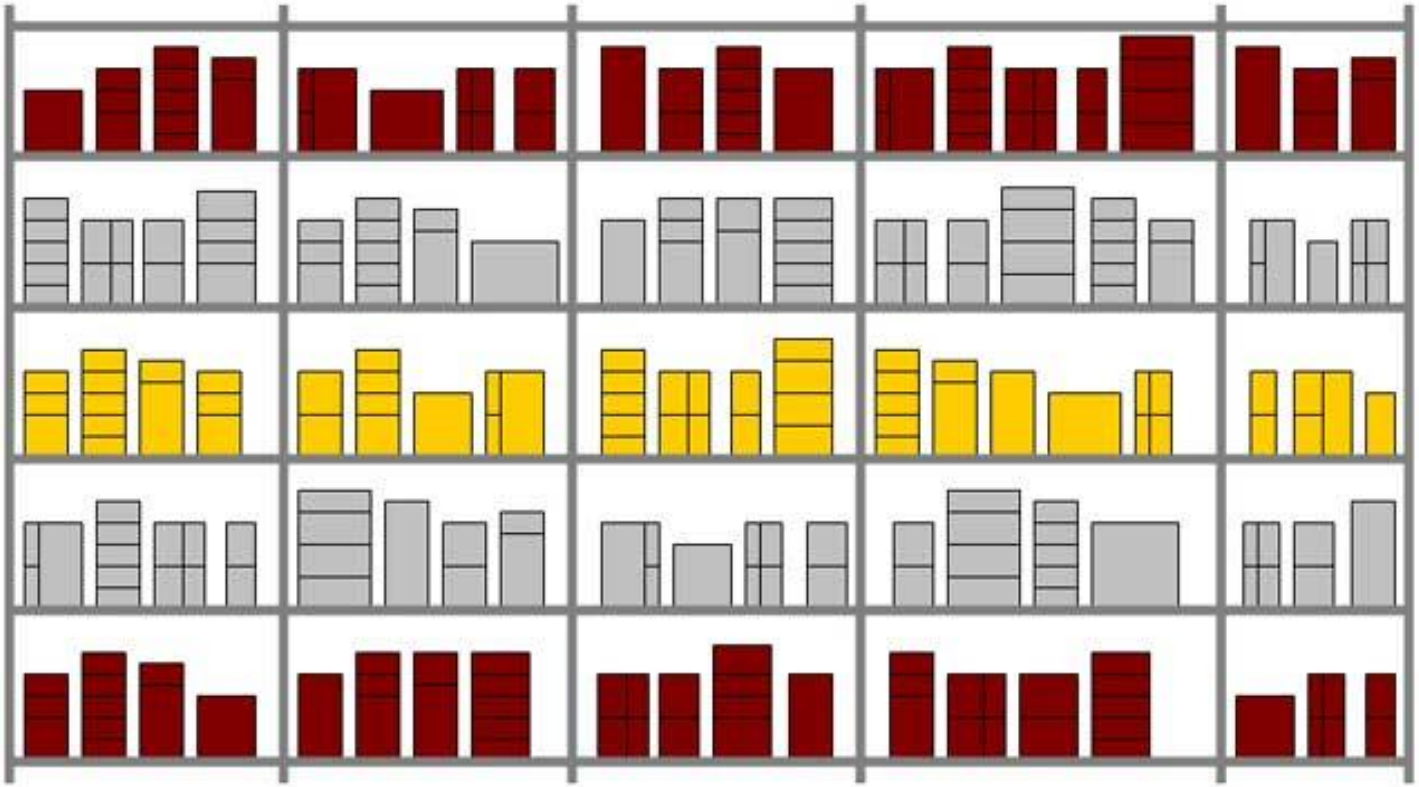


Wave Picking

- Combination of zone picking and batch picking
- Each zone picks multiple orders but does not separate the order at the time of the pick
- Orders are separated out at a later point in the process



Slotting and the "Explosion" of SKU's



Current Trends

Primary pick locations:

- Floor level picking has migrated to multi-level picking due to the expansion of SKU's within the warehouse
- Expansion of pick locations from 2nd- 4th level and beyond (depending on slotting of racking)
- Picking in narrow or very narrow aisles to maximize storage density

Labor Management (reduction)

- expensive and challenging due to peak or seasonal demands.
- temporary help requires time consuming training, long learning cycles and opportunity for costly errors.

Cube Within the Cube – Managing SKU's and Utilizing the Right Storage Medium(s)

Selective Racking

Carton Flow

Pallet Flow Racking

Order Picking Types

- Pallet Picking – Full and Partial
- Full Case or Carton Picking
- Piece (each) Picking

Equipment By Order Picking Type

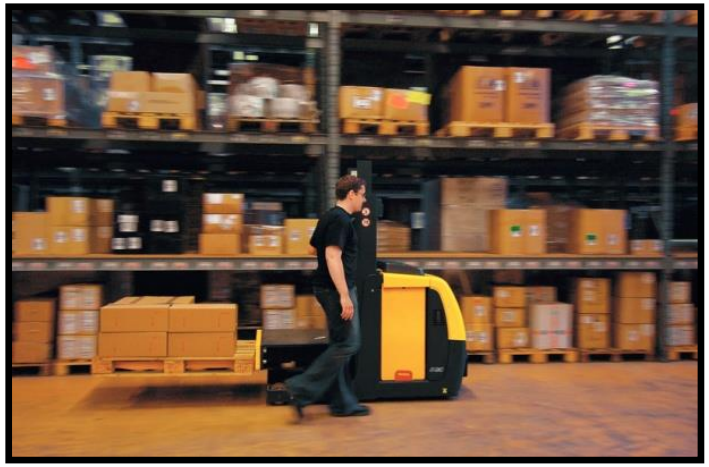
Type 1: Pallet Picking - Full Pallet In/Full Pallet Out

Equipment By Order Picking Type – Low Level

Case Picking – can be separated into two unique applications;

Low-level

- Pedestrian "Push" Carts
- Pallet Trucks – end-control riders
- Low Level Order Pickers with optional mini or auxiliary mast



High-level

– Turret Trucks and High Level Order Pickers

Order Picking Technologies

Type: Split Case Pick / Piece Picking: Picking SKU From Open Case

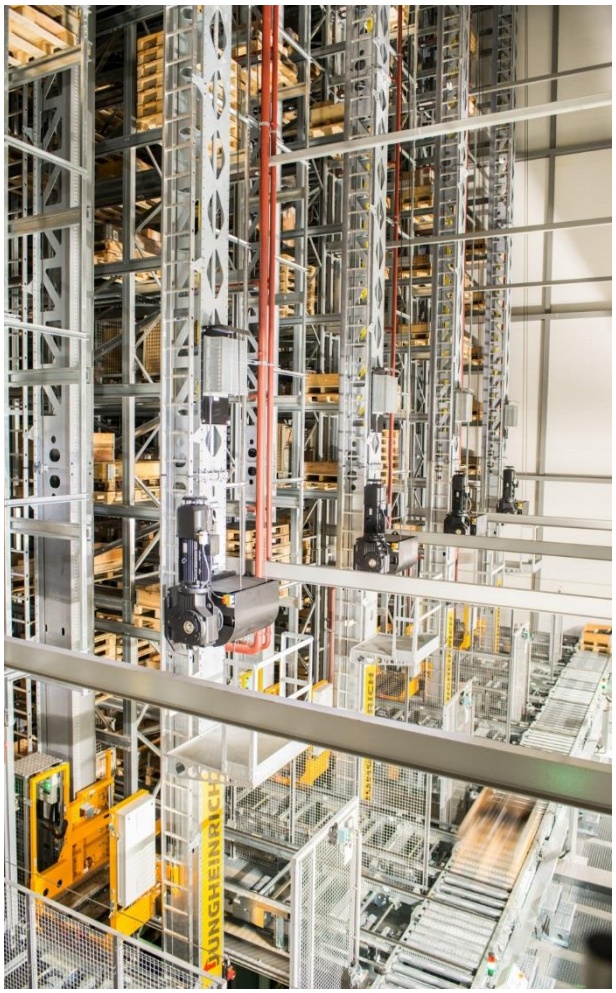
- More Common Solutions:
  - Conveyors (Pick to Belt)
  - Pick-To-Light

Order Picking Technologies

- **Type: Split Case Pick / Piece Picking: Picking SKU From Open Case**

More Common Solutions:

- Carousels (Horizontal or Vertical)
- RFID Transponders
- Automatic Storage & Retrieval Systems (AS/RS)



Pareto's Law within a warehouse implies that:

- 80% of activity is generated by 20% of products.
- 15% of activity is generated by 50% of products.
- 5% of activity is generated by 30% of products.

ORDERPICKING: THE KEY TO HIGHER PRODUCTIVITY

- Traveling/Lifting/Lowering = 60%
- Extracting = 20%
- Searching = 10%
- Documenting, reaching, sorting and counting =10%

MAIN OBJECTIVES

IMPROVE THE PROCESS AS A WHOLE

- ✓ Increase Productivity and Picking Accuracy
- ✓ Better utilize the storage medium or mediums
- ✓ Reduce the fleet size
- ✓ Reduce the labor content
- ✓ Implement tools (WMS, Slotting programs, Productivity tools) to make better business decisions

REDUCE THE COSTS

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