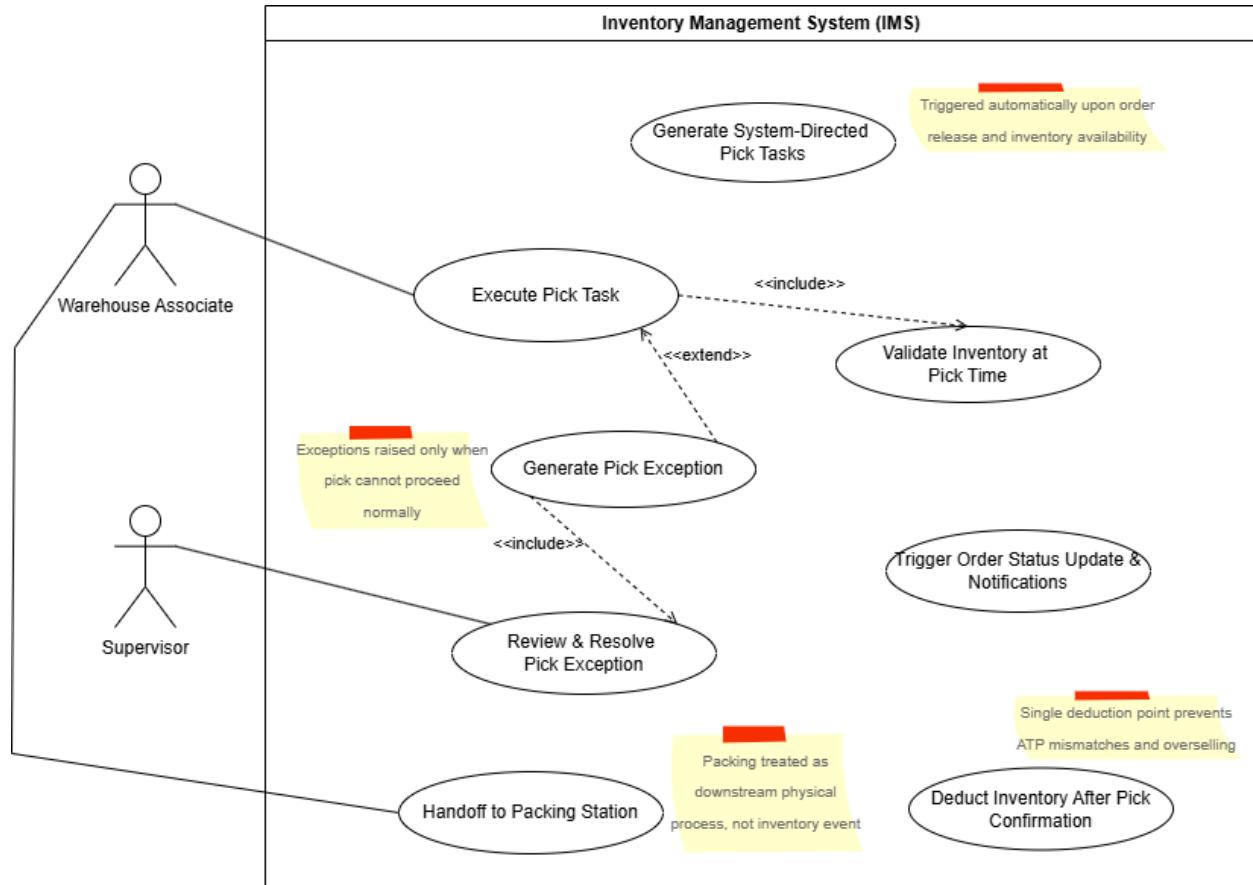


Use Case Diagram



Use Case Specifications & Wireframes

UC-OP-01: Generate System-Directed Pick Tasks

Primary Actor

IMS

Brief Description

Create optimized pick tasks for warehouse execution.

Preconditions

- Customer orders released
- Inventory available in system

Postconditions

- Pick tasks available to associates

Main Success Scenario

1. IMS evaluates open orders
2. Determines optimal pick locations
3. Generates pick tasks and queues them

Business Rules & Notes

- One active pick task per order line
- Tasks prioritized by order SLA

SYSTEM-DIRECTED ORDER PICKING

Task ID:
[PT-77421]

Order ID:
[ORD-88942]

SKU:
Milk 2L (SKU-060)

Required Qty:
4 units

Pick Location:

Aisle A | Shelf 03 | Slot 08

Scan Pick Location

Scan SKU

Confirm Pick

System Message:

- ✓ Pick confirmed
- ✓ Inventory deducted

UC-OP-02: Execute Pick Task

Primary Actor

Warehouse Associate

Brief Description

Pick items accurately for customer orders.

Preconditions

- Pick task assigned and visible

Postconditions

- Pick completed or exception raised

Main Success Scenario

1. Associate selects pick task
2. Navigates to pick location
3. Scans location label
4. Picks required quantity
5. Confirms pick

Alternative Flow

- If quantity unavailable → UC-OP-04

Business Rules & Notes

- Location scan mandatory
- Partial picks require confirmation

UC-OP-03: Validate Inventory at Pick Time

Primary Actor

IMS

Brief Description

Prevent pick-time errors.

Preconditions

- Associate submits pick confirmation

Postconditions

- Pick validated

Main Success Scenario

- IMS validates SKU and location
- Confirms available quantity
- Approves pick

Business Rules & Notes

- Validation occurs in real time
- Invalid picks blocked immediately

UC-OP-04: Generate Pick Exception

Primary Actor

IMS

Brief Description

Capture and escalate pick issues.

Preconditions

- Pick validation fails

Postconditions

- Exception recorded

Main Success Scenario

1. IMS creates pick exception
2. Logs exception reason
3. Flags order for follow-up

Business Rules & Notes

- Exceptions do not auto-adjust inventory
- Replenishment may be triggered separately

UC-RP-05: Review & Resolve Pick Exception

Primary Actor

Warehouse Supervisor

Brief Description

Resolve Picking exception issues efficiently.

Preconditions

- Exception generated

Postconditions

- Exception resolved

Main Success Scenario

1. Supervisor reviews exception
2. Approves adjustment, reroutes task, or rejects
3. Confirms resolution

Business Rules & Notes

- Supervisor approval required
- All actions audit logged

PICKING EXCEPTION REVIEW

Exception ID: [OP-EX-3021] Order ID: ORD-88942

SKU ID	REQUIRED QTY	AVAILABLE QTY	VARIANCE
SKU-060	68	52	-2

Reason (Auto-Detected):



Quantity mismatch

Suggested Actions:

- Short Pick Allowed
- Trigger Replenishment
- Reassign Order

Supervisor Notes:

Confirm Action

UC-OP-06: Auto-Deduct Inventory After Pick Completion

Primary Actor

IMS

Brief Description

Ensure accurate inventory deduction.

Preconditions

- Pick validated successfully

Postconditions

- Inventory updated

Main Success Scenario

1. IMS deducts QOH
2. Recalculates ATP
3. Records transaction

Business Rules & Notes

- Single deduction point only
- No deduction at packing

UC-OP-07: Handoff to Packing Station

Primary Actor

Warehouse Associate

Brief Description

Move picked items to packing.

Preconditions

- Pick completed

Postconditions

- Order ready for packing

Main Success Scenario

4. Associate transfers items to packing area
5. Marks task as handed off

Business Rules & Notes

- Packing does not revalidate inventory

UC-OP-08: Trigger Order Status Update & Notifications

Primary Actor

IMS

Brief Description

Keep order flow synchronized.

Preconditions

- Inventory deduction completed

Postconditions

- Order visible as ready for dispatch

Main Success Scenario

1. IMS updates order status
2. Notifies downstream systems

Business Rules & Notes

- Notifications are asynchronous
- Failure does not block order flow