

Inventory tracking and rotation management

This workflow automatically tracks inventory levels, monitors expiration dates, and triggers rotation actions to ensure first-in-first-out compliance while preventing spoilage in cold storage facilities.

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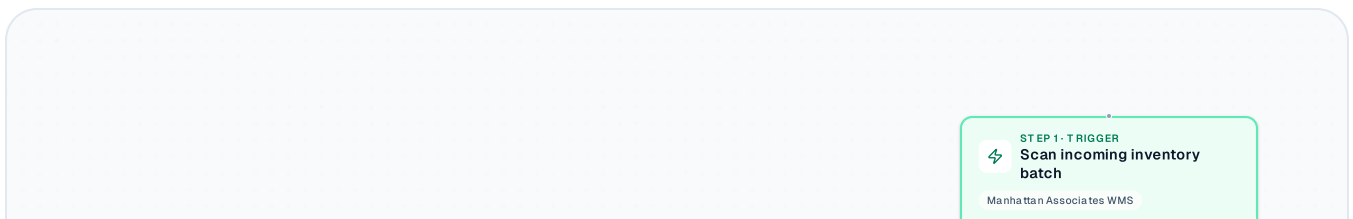
WORKFLOW TRIGGER

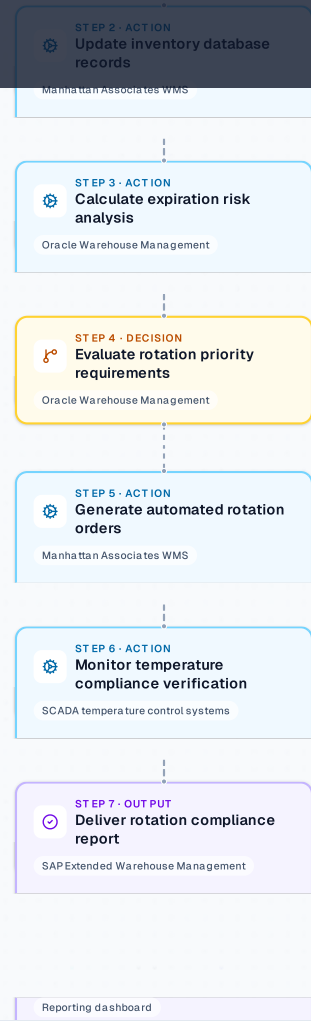


New inventory batch arrives at cold storage facility or scheduled daily inventory scan occurs

Visual Flow

Each node represents an automated step. Connections show how data and decisions move through the workflow.





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Step-by-Step Breakdown

Detailed explanation of each automated stage in the workflow.

1

⚡ TRIGGER

Scan incoming inventory batch

RFID sensors and barcode scanners capture product details including batch numbers, expiration dates, and quantities as items enter the facility.

Data is automatically logged with timestamp and storage location assignment.

Manhattan Associates WMS

RFID scanning system

2

 ACTION

Update inventory database records

Product information is synchronized across warehouse management systems with real-time location tracking and expiration date monitoring. Current stock levels and product positioning are updated automatically.

Manhattan Associates WMS

SAP Extended Warehouse Management

3

 ACTION

Calculate expiration risk analysis

AI algorithms analyze current inventory levels against historical consumption patterns to predict which products require immediate rotation. Risk scores are assigned based on days until expiration and current demand forecasts.

Oracle Warehouse Management

Predictive analytics engine

4

 DECISION

Evaluate rotation priority requirements

System determines if any products have high expiration risk scores or violate FIFO rules requiring immediate action. Decision branches between standard monitoring and urgent rotation protocols.

Oracle Warehouse Management

Generate automated rotation orders

For high-risk items, the system creates pick lists prioritizing older inventory and generates warehouse staff alerts with specific location coordinates. Rotation tasks are automatically assigned to available workers.

Manhattan Associates WMS

Mobile workforce management

6

⚙️ ACTION

Monitor temperature compliance verification

SCADA systems verify that temperature conditions remain optimal during inventory movement and rotation activities. Any temperature deviations trigger immediate alerts and halt rotation processes if needed.

SCADA temperature control systems

Refrigeration monitoring software

7

📄 OUTPUT

Deliver rotation compliance report

System generates comprehensive reports showing completed rotations, current inventory age distribution, and projected spoilage prevention metrics. Compliance documentation is automatically filed for audit purposes.

SAP Extended Warehouse Management

Reporting dashboard



Outputs

- Automated rotation task assignments
- Real-time inventory age tracking
- Spoilage prevention compliance reports



Key Metrics

- Inventory turnover rate
- Spoilage reduction percentage
- FIFO compliance score



Tools & Integrations

- Manhattan Associates WMS
- RFID scanning system
- SAP Extended Warehouse Management
- Oracle Warehouse Management
- Predictive analytics engine
- Mobile workforce management
- SCADA temperature control systems
- Refrigeration monitoring software



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