

Inventory tracking and material procurement

This workflow automatically monitors raw material inventory levels and initiates procurement when stock reaches predefined thresholds, ensuring continuous production capability while optimizing material costs and storage.

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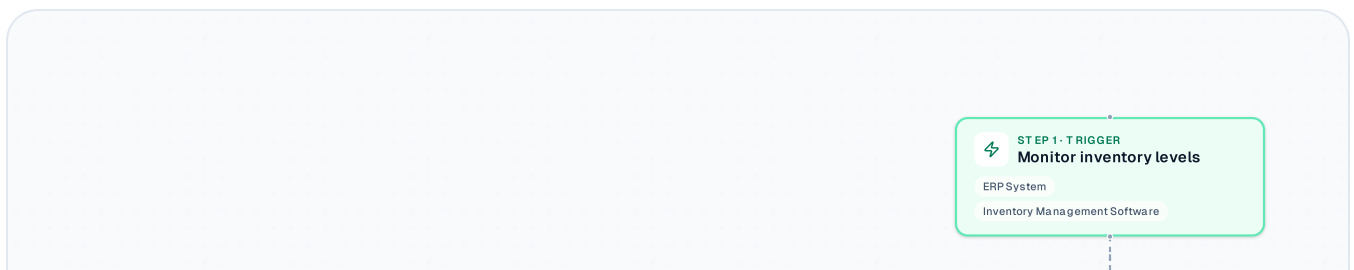


WORKFLOW TRIGGER

Material inventory level drops below minimum threshold in ERP system

Visual Flow

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





Step-by-Step Breakdown

Detailed explanation of each automated stage in the workflow.

1

⚡ TRIGGER

Monitor inventory levels

ERP system detects that raw material stock (bar stock, sheet metal, etc.) has fallen below the predetermined reorder point. This triggers an automated assessment of current and projected material needs.

2

 ACTION

Analyze production schedule requirements

System reviews upcoming production jobs and CNC programs to calculate precise material quantities needed over the next planning period. It cross-references active work orders with material specifications.

Mastercam

SolidWorks CAM

Production Scheduling Software

3

 DECISION

Evaluate procurement urgency

System determines if this is a critical shortage requiring expedited ordering or standard replenishment. Decision based on lead times, current WIP, and scheduled delivery dates.

ERP System

Inventory Management Software

4

 ACTION

Generate optimized purchase orders

System creates purchase orders with optimal quantities considering volume discounts, storage capacity, and future demand projections. Automatically routes to pre-approved suppliers based on material specifications.

ERP System

Supplier Management System

5

 ACTION

Update production planning

AI Business OS

System adjusts CNC machine scheduling and job sequencing to account for material availability and expected delivery dates. Prioritizes jobs based on material on-hand versus incoming stock.

FANUC CNC Controls

Haas VF Series

Production Scheduling Software

6

 ACTION

Track delivery and receipt

System monitors supplier delivery status and automatically updates inventory levels upon material receipt and quality inspection. Triggers receiving documentation and storage location assignment.

ERP System

CMM Inspection Software

Inventory Management Software

7

 OUTPUT

Generate procurement report

System produces comprehensive report showing purchase orders created, delivery schedules, updated inventory levels, and production impact analysis. Notifies relevant personnel of any critical material shortages or delays.

ERP System

Reporting Dashboard



Outputs

AI Business OS

- Automated purchase orders sent to suppliers
- Updated production schedules accounting for material availability
- Real-time inventory status reports with delivery tracking



Key Metrics

- Inventory turnover rate
- Stockout frequency
- Material cost per job



Tools & Integrations

- ERP System
- Inventory Management Software
- Mastercam
- SolidWorks CAM
- Production Scheduling Software
- FANUC CNC Controls
- Haas VF Series
- Supplier Management System
- CMM Inspection Software
- Reporting Dashboard

AI Business OS

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