

# Inventory management and supply chain optimization

Automates inventory tracking and procurement for printing materials by monitoring stock levels, analyzing job forecasts, and automatically triggering supplier orders to prevent production delays.

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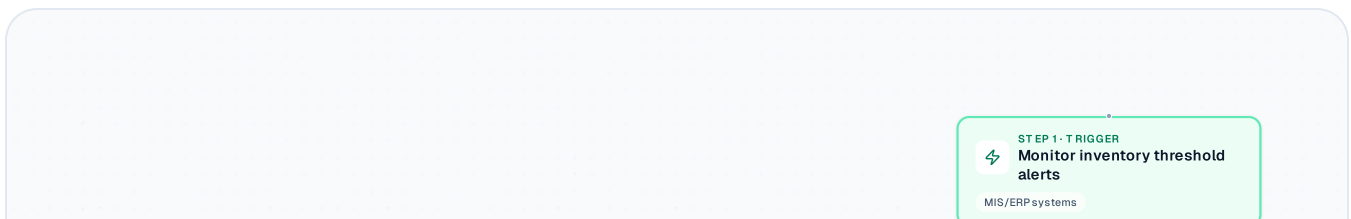


## WORKFLOW TRIGGER

Inventory levels for paper, ink, or consumables fall below predefined thresholds in the MIS/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 threshold alerts

MIS/ERP system triggers when paper stock, ink levels, or printing consumables reach minimum safety levels. Real-time inventory tracking

initiates the procurement workflow.

## AI Business OS

MIS/ERP systems

2

 ACTION

### Analyze upcoming production schedules

System pulls scheduled print jobs from Prinect workflow and calculates material requirements for next 30 days. Factors in job specifications, quantities, and substrate requirements.

Heidelberg Prinect

MIS/ERP systems

3

 ACTION

### Calculate optimal order quantities

AI analyzes historical usage patterns, seasonal trends, and current production forecasts to determine ideal reorder quantities. Balances storage costs with volume discounts and delivery lead times.

MIS/ERP systems

4

 DECISION

### Evaluate supplier performance metrics

System compares supplier delivery times, pricing, and quality ratings to select optimal vendor. Routes to preferred supplier if performance meets criteria, otherwise triggers vendor comparison.

MIS/ERP systems

5

 ACTION

### Generate automated purchase orders

## AI Business OS

Creates purchase orders with specifications, quantities, and delivery dates based on production schedule analysis. Sends orders directly to approved suppliers via EDI or email integration.

MIS/ERP systems

6

 ACTION

### Update inventory forecasts

System adjusts inventory projections based on pending orders and delivery schedules. Updates safety stock levels and reorder points using machine learning from consumption patterns.

MIS/ERP systems

7

 OUTPUT

### Deliver procurement status dashboard

Generates real-time dashboard showing inventory levels, pending orders, supplier performance, and potential stockout risks. Provides alerts for production planning teams.

MIS/ERP systems



### Outputs

- Automated purchase orders sent to suppliers

- Updated inventory forecasts and safety stock levels

## AI Business OS



### Key Metrics

- Days of inventory on hand
- Purchase order processing time
- Stockout incidents prevented



### Tools & Integrations

- MIS/ERP systems
- Heidelberg Prinect

## AI Business OS

Actionable AI implementation strategies for business leaders ready to transform their operations.

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