

# Production scheduling and resource allocation

This workflow automatically schedules print jobs and allocates production resources based on order specifications, machine availability, and material inventory to optimize production efficiency and meet delivery deadlines.

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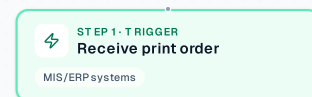


## WORKFLOW TRIGGER

New print order is received in the MIS/ERP system

## 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

### Receive print order

A new print job order is submitted through the customer portal or sales team and enters the MIS/ERP system. Order details include specifications, quantity, materials, and delivery deadline.

2

 ACTION

### Analyze job specifications

The system extracts technical requirements including paper type, ink colors, finishing options, and estimated production time. Job complexity and resource requirements are calculated automatically.

MIS/ERP systems

Heidelberg Prinect

3

 ACTION

### Check resource availability

System queries current machine schedules, operator availability, and material inventory levels. Real-time capacity and material stock status are retrieved from connected systems.

MIS/ERP systems

Heidelberg Prinect

EFI Fiery

4

 DECISION

### Evaluate production capacity

AI determines if the job can be completed with current resources and timeline. Decision branches based on whether immediate production is possible or if scheduling adjustments are needed.

MIS/ERP systems

Heidelberg Prinect

5

 ACTION

### Optimize production schedule

## AI Business OS

The system automatically assigns optimal time slots, machines, and operators based on job priority, deadline, and resource efficiency. Schedule conflicts are resolved through AI-driven optimization.

MIS/ERP systems

Heidelberg Prinect

Kodak Prinerger

6

 ACTION

### Allocate materials and operators

Required materials are reserved from inventory and qualified operators are assigned to specific production shifts. Equipment setup requirements are flagged for prepress teams.

MIS/ERP systems

Kodak Prinerger

7

 OUTPUT

### Generate production schedule

A comprehensive production schedule with resource allocations, material requirements, and timeline milestones is generated and distributed to production teams and stakeholders.

MIS/ERP systems

Heidelberg Prinect



### Outputs

- Optimized production schedule with assigned time slots

- Resource allocation plan with operator assignments

## AI Business OS



### Key Metrics

- Production schedule adherence percentage
- Resource utilization rate
- Order fulfillment lead time



### Tools & Integrations

- MIS/ERP systems
- Heidelberg Prinect
- Kodak Prinergy
- EFI Fiery

## AI Business OS

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

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