

Equipment maintenance and predictive analytics

This workflow automatically monitors equipment performance data, predicts potential failures, and schedules preventive maintenance to minimize unplanned downtime in food manufacturing operations.

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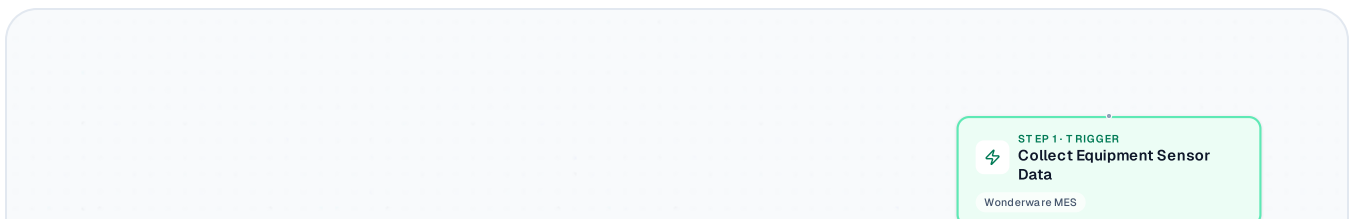


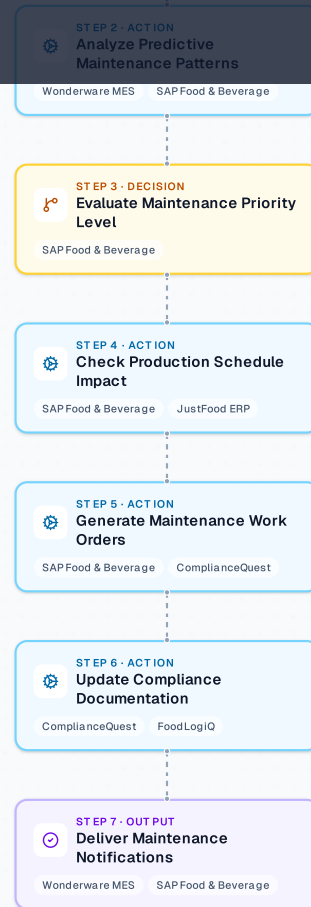
WORKFLOW TRIGGER

Equipment sensor data indicates performance deviation beyond normal operating parameters

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

Collect Equipment Sensor Data

IoT sensors on manufacturing equipment detect anomalies in temperature, vibration, pressure, or other performance metrics. Real-time data is

captured from production lines including mixers, ovens, packaging machines, and refrigeration units.

Wonderware MES

2

 ACTION

Analyze Predictive Maintenance Patterns

AI algorithms process historical performance data and current sensor readings to identify patterns indicating potential equipment failure. The system calculates failure probability scores and estimated time to failure.

Wonderware MES

SAP Food & Beverage

3


 DECISION

Evaluate Maintenance Priority Level

System determines if the equipment requires immediate attention, scheduled maintenance, or continued monitoring based on failure probability and production impact. Critical food safety equipment receives highest priority.

SAP Food & Beverage

4

 ACTION

Check Production Schedule Impact

System analyzes current production runs, batch schedules, and inventory levels to determine optimal maintenance windows. Considers food safety requirements and expiration dates for perishable products.

SAP Food & Beverage

JustFood ERP

5

Generate Maintenance Work Orders

Automated creation of work orders with specific maintenance tasks, required parts, and technician assignments. Orders include food safety protocols and equipment sanitization requirements.

SAP Food & Beverage

ComplianceQuest

6

ACTION

Update Compliance Documentation

System logs all maintenance activities, equipment status changes, and safety verifications to maintain regulatory compliance. Updates equipment history and certification records automatically.

ComplianceQuest

FoodLogiQ

7

OUTPUT

Deliver Maintenance Notifications

Sends automated alerts to maintenance teams, production managers, and quality assurance staff with maintenance schedules and equipment status updates. Provides dashboard updates on equipment health scores.

Wonderware MES

SAP Food & Beverage



Outputs

- Predictive maintenance work orders
- Equipment health score reports
- Production schedule adjustments
- Regulatory compliance documentation



Key Metrics

- Equipment downtime reduction percentage
- Mean time between failures (MTBF)
- Maintenance cost per production hour
- Regulatory compliance score



Tools & Integrations

- Wonderware MES
- SAP Food & Beverage
- JustFood ERP
- ComplianceQuest
- FoodLogiQ

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