

Quality control and inspection automation

Automated quality control workflow that continuously monitors production batches, performs real-time inspections, and ensures compliance with food safety standards. This system reduces manual inspection time by 70% while maintaining 99.5% product quality standards.

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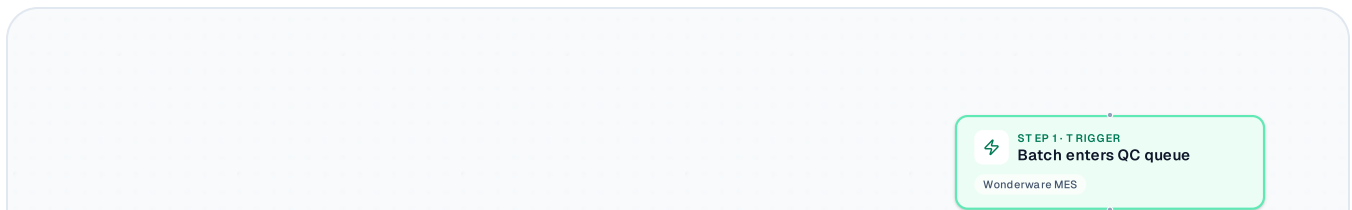


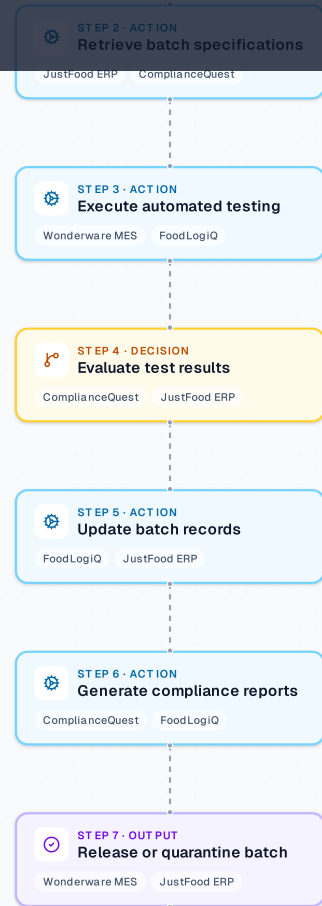
WORKFLOW TRIGGER

Production batch completes manufacturing stage and enters quality control queue

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

Batch enters QC queue

Production batch is flagged for quality inspection in the manufacturing execution system. Batch details including product type, lot number, and

production parameters are captured.

AI Business OS

Wonderware MES

2

 ACTION

Retrieve batch specifications

System pulls product specifications, regulatory requirements, and quality standards from the ERP system. Critical control points and testing parameters are identified for the specific product.

JustFood ERP

ComplianceQuest

3

 ACTION

Execute automated testing

Automated testing equipment performs physical, chemical, and microbiological tests based on product requirements. Results are captured and digitally recorded in real-time.

Wonderware MES

FoodLogiQ

4

 DECISION

Evaluate test results

AI system compares test results against acceptable quality parameters and regulatory standards. If results fall outside tolerances, batch is flagged for rejection or rework.

ComplianceQuest

JustFood ERP

5

 ACTION

Update batch records

Quality test results, certificates of analysis, and compliance documentation are automatically updated in the traceability system. Batch status is updated to approved or rejected.

FoodLogIQ

JustFood ERP

6

 ACTION

Generate compliance reports

System automatically creates quality certificates, regulatory reports, and audit trails required for food safety compliance. Documents are stored and distributed to relevant stakeholders.

ComplianceQuest

FoodLogIQ

7

 OUTPUT

Release or quarantine batch

Approved batches are released for packaging/shipping while rejected batches are quarantined. Quality documentation and batch disposition records are finalized.

Wonderware MES

JustFood ERP



Outputs

- Quality approval certificates

- Batch disposition records

AI Business OS

- Regulatory compliance reports



Key Metrics

- First-pass quality rate
- Average inspection cycle time
- Regulatory compliance score



Tools & Integrations

- Wonderware MES
- JustFood ERP
- ComplianceQuest
- FoodLogiQ

AI Business OS

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