



# Factory Simulator

---

The AI Testing Platform for Manufacturing

ERP Simulation

QMS Module

98%+ Quality

# The Problem: Developing AI for Factories is Hard

01

Building AI solutions for manufacturing often fails due to a fundamental problem: **Lack of access to realistic test environments.**

- ✓ Real production data is sensitive and not available for testing
- ✓ SAP systems are complex, expensive, and hard to replicate
- ✓ Manual test data doesn't reflect reality
- ✓ AI models deliver only 60-70% answer quality in practice

## THE CONSEQUENCE

AI projects fail because they were never tested under realistic conditions.

# Our Solution: Factory Simulator

02

A complete, realistic factory simulation that mirrors SAP processes - specifically designed for **testing and developing AI use cases**.

- ✓ Complete SAP PP/MM/PM process mapping
- ✓ Real-time simulation with 5-second cycle
- ✓ RESTful API for easy AI integration
- ✓ Deterministic behavior for reproducible tests
- ✓ No licenses, no cloud dependency, full control

## OUR GOAL

98%+ answer quality through realistic training and test data.

# Features: Everything a Real Factory Has

03

5

CNC Machines

200+

Materials

2

Modules (ERP + QMS)

- ✓ **ERP Module:** Production, materials, capacity, maintenance, MRP
- ✓ **QMS Module:** Inspection plans, SPC control charts, Q-notifications, CAPA
- ✓ **Quality KPIs:** First Pass Yield, Cpk index, SPC alarms
- ✓ **OTD Tracking:** On-Time Delivery per customer with drill-down
- ✓ **Controller:** 12 rules for autonomous factory control

# AI Testing: How We Achieve 98%+ Quality

The simulator enables systematic AI testing with measurable results:

- ✓ **Ground Truth:** Every answer can be validated against actual system state
- ✓ **Reproducibility:** Identical scenarios for A/B tests and regression
- ✓ **Complex Scenarios:** Material shortages, quality issues, SPC alarms
- ✓ **API-First:** 50+ REST endpoints for ERP and QMS integration
- ✓ **Metrics:** OTD, OEE, FPY, Cpk, inventory turnover for success measurement

## TYPICAL AI USE CASES

Production planning, predictive maintenance, quality prediction, SPC analysis, CAPA automation

# Results: What You Can Expect

05

**98%+**

Answer Quality

**10x**

Faster Development

**100%**

Reproducible

- ✓ **Validated Answers:** Every AI response verifiable against ground truth
- ✓ **Faster Iteration:** No waiting for real production data
- ✓ **Risk-Free Testing:** No impact on actual production
- ✓ **Scalable Tests:** Run thousands of scenarios automatically

## NEXT STEP

Start the simulator and test your AI use cases today.