

The background image shows two men in industrial settings, wearing white hard hats and high-visibility yellow safety vests over blue shirts. They are seated at a desk with four computer monitors. The monitors display various data visualizations, including line graphs and bar charts. One man is pointing at a monitor with a pen. The scene is dimly lit, with the primary light source being the screens. Overlaid on this image are three colored rectangular boxes: an orange box in the top-left, a white box in the top-right, and a blue box in the bottom-left.

THE INTRODUCTORY GUIDE

TO AGENTIC AI

FOR INVENTORY MANAGEMENT

**Improve service levels and
maximize business value
with AI that predicts, decides,
and acts autonomously.**

Contents

- 3 **Introduction**
The future of supply chain management is agentic
- 4 **What are agents?**
From insight to action: meet the AI agents behind the next era of supply chain intelligence
- 5 **Predict. Decide. Act.**
The foundation of agentic inventory management
- 6 **Agentic inventory management**
Continuous inventory optimization across your entire supply chain
- 7 **The agentic UX**
Designed for supply chain leaders, powered by agentic AI
- 8 **Building the future of agentic AI**
The vision for intelligent supply chain management
- 9 **Welcome to the age of agentic supply chains**

Introduction

The future of supply chain management is agentic

Supply chain leaders have always been the backbone of operational performance. They balance service, cost, and working capital, often across thousands of SKUs and dozens of suppliers. But that balance is harder than ever to maintain.

Volatile demand, shipping delays and rising costs make traditional planning too slow and too rigid. Teams spend more time firefighting than optimizing, reacting to yesterday's problems instead of preparing for tomorrow's opportunities.

Agentic AI changes that. It marks a shift from AI that advises to AI that acts. These systems don't just recommend what to do; they predict, decide, and execute automatically, at scale and in real time.

At UiPath, we think about business performance through a simple equation:

$$\text{Output} = \text{Decision Accuracy} \times \text{Resource Performance}$$

Agentic AI improves both sides of that equation. It makes every supply chain decision smarter and faster, while freeing teams from manual tasks so they can focus on strategic priorities.

And it's already happening. Businesses like Hain Celestial are using the UiPath Solution for inventory management to anticipate demand, reduce inefficiencies, and build smarter, more resilient supply chains.

Welcome to the age of agentic operations, where supply chains don't just adapt—they stay ahead.

What are agents?

From insight to action: meet the AI agents powering the next evolution of supply chain intelligence

Agentic AI represents a step forward, where AI doesn't just analyze but acts.

At the core of this evolution are agents—intelligent systems that plan, act, learn, and adapt across complex supply chain networks. They connect predictive models, decision logic, and automation so that decisions can happen continuously, without manual intervention.

In supply chain management, agents bridge the gap between planning and execution. They turn data into action, orchestrating everything from demand forecasting and replenishment to purchase order management and production scheduling.

Why agentic AI matters now

Supply chains are under pressure from every direction—unstable demand, constrained supply, higher costs, and greater expectations for speed and service. Yet most decisions are still being made in spreadsheets and email threads.

Agentic AI changes this. It predicts what's coming, decides the best course of action, and acts instantly, transforming supply chains from reactive to proactive.

The next evolution of automation

Traditional automation follows fixed rules: if A happens, do B. That works when the world is predictable, but modern supply chains are anything but.

Agents think probabilistically. They weigh options, interpret context and adapt in real time. They thrive in complexity, learning from every cycle and improving automatically.

- **Interpret context from unstructured data**
- **Handle exceptions and make judgment calls**
- **Collaborate with people and systems**
- **Learn and improve with every outcome**

Agents don't replace supply chain teams. They enhance them.

Agentic AI at work: the UiPath Solution for inventory management

Agentic AI brings three capabilities together: **predict** what's likely to happen, **decide** the optimal course of action, and **act** autonomously while continuously learning.

This is the foundation of the UiPath Solution for inventory management: where every decision is predicted, optimized, and executed automatically.

Predict. Decide. Act.

The foundations of the UiPath Solution for inventory management

Our agentic inventory management solution combines predictive AI, decision optimization, and agent-led execution in a continuous cycle that never stops improving.

1. **Predict: what's likely to happen?**

AI models forecast demand, detect risks and highlight opportunities across procurement, production, and fulfillment.

They analyze seasonality, supplier reliability, and trends to anticipate disruption.

2. **Decide: what should we do about it?**

Optimization engines balance service levels, costs, and working capital goals.

They simulate thousands of scenarios to recommend the best actions for each SKU, supplier, and location.

3. **Act: execute autonomously**

AI agents take those decisions and carry them out.

They place orders, manage replenishment, adjust production schedules, and handle supplier negotiations within your business guardrails.

The result is a supply chain that runs continuously—forecasting, adjusting, and optimizing as the market evolves.

This is agentic inventory management, where supply chain managers spend less time reacting and more time driving growth.

Agentic inventory management

Continuous inventory optimization across your entire supply chain

Supply chains operate in a world of constant volatility. The UiPath Solution for inventory management continuously balances service, cost, and working capital through predictive planning, optimized decision making, and autonomous execution.

Predict

AI models forecast demand at every SKU and location, identify potential stockouts or excess, and surface risks across suppliers, production, and fulfillment.

Decide

Optimization engines determine ideal inventory levels and reorder points for each item, weighing service-level targets, cost constraints, and lead-time variability.

Act

Agents run simulations to support planning, negotiate with suppliers, issue and manage POs, maintain optimal stock across locations, and adapt production schedules.

Results

Greater service reliability.
Lower stock exposure.
Leaner working capital.

“With UiPath, we’re able to anticipate and respond to demand volatility more effectively, ensuring our customers get the products they love while reducing inefficiencies across our operations.”

**James Cranfield, Hain
Celestial Group**

The agentic UX

Designed for supply chain leaders, designed into our solution

Our agentic user experience brings intelligence into the flow of everyday supply chain work. It surfaces insights, tasks, and recommendations that guide action. Instead of chasing data, planners and managers focus on outcomes.

Core features:

AUTOPILOT:

A conversational AI assistant that helps users automate tasks, get quick answers, and trigger agentic actions.

PERSONALIZED HOMEPAGE:

A tailored hub highlighting key priorities, risks, and opportunities for each user.

CANVAS:

A workspace combining operational dashboards, performance reports, and actionable insights in one place.

AGENTIC ACTIONS:

AI-powered prompts that guide users to the best next move, helping resolve exceptions faster and optimize performance with confidence.

This interface brings clarity to complexity, guiding users through decisions and surfacing what matters most.

This is collaboration between humans and AI—intuitive, responsive, and built for speed.

Building the future of agentic AI

The vision for intelligent supply chain and inventory management

The UiPath Solution for inventory management is a complete agentic ecosystem that connects data, insights, decisions, and execution within a single integrated capability. It enables true end-to-end autonomy in operations and supply chain transformation—melding data, decisions, and execution in one flow.

Our solution delivers:



SPECIALIZED AI AGENTS:

purpose-built for procurement, production, and logistics



ENTERPRISE-SCALE INTELLIGENCE:

domain expertise combined with leading agentic automation



END-TO-END TRANSFORMATION:

connecting insights, decisioning, and execution into a seamless flow

The UiPath Solution for inventory management optimizes inventory across purchasing, production, and fulfillment.

It forecasts demand and service levels, sets stock and production plans, and executes orders to lower capital, reduce stockouts, and raise service.

Welcome to the age of agentic inventory management

Agentic AI is redefining supply chain performance. It replaces manual processes and static planning with intelligent systems that predict, decide, and act continuously.

It's time to give supply chain teams tools that work as dynamically as the world they operate in. The UiPath Solution for inventory management transforms how supply chains plan, operate, and adapt—driving measurable impact across every product, supplier, and customer.

Discover how the UiPath Solution for inventory management can transform your operations today.

