SymphonyAI

Smarter operations start here:

AI-powered transformation

with IRIS Foundry

As a Vice President of Plant Operations, you're charged with driving efficiency, minimizing downtime, and delivering measurable business outcomes. Yet, many of today's plants are still navigating fragmented systems, siloed data, and limited real-time visibility.

What if your teams could respond faster, act smarter, and continuously improve—powered by a unified, AI-enabled platform?

SymphonyAI's IRIS Foundry makes that vision real.

Across core industrial processes—from precision machining to cleaning validation and refinery optimization—IRIS Foundry delivers actionable insights, rapid deployment, and tangible results. The following three use cases demonstrate how plant operations are being reimagined through intelligent applications built on IRIS Foundry.

Key challenges in the industry and how we can solve them

1. Siloed data and legacy systems

Most plants still operate with fragmented systems that don't speak to each other. Data lives in silos, across ERP, historians, sensors, and spreadsheets, making it hard to see the full picture or act on insights quickly.

IRIS Foundry Solution: Seamless data integration across all sources in a unified Data Lake, enabling real-time visibility and smarter decision-making.

2. Slow response times and limited real-time insight

Whether it's machine downtime or a process deviation, too many teams are stuck reacting after the fact. Without live data, it's impossible to stay ahead of issues.

IRIS Foundry Solution: Real-time dashboards and alerts empower frontline workers and plant managers to intervene before problems escalate.

3. Compliance complexity and audit readiness

Manual logs and outdated reporting tools make regulatory compliance (e.g., FDA, ESG) burdensome and error-prone.

IRIS Foundry Solution: Automated compliance dashboards, audit trails, and deviation tracking reduce manual work and improve readiness.

4. Workforce turnover and skills gaps

Retiring experts and fewer skilled technicians make knowledge retention and operational consistency a challenge.

IRIS Foundry Solution: AI-assisted applications and intuitive interfaces support new workforce enablement and preserve institutional expertise.

5. Pressure to improve margins and sustainability

With rising costs and environmental pressures, operations leaders are under immense pressure to do more with less—while also achieving ESG goals.

IRIS Foundry Solution: Integrated financial, operational, and sustainability analytics enable data-backed decisions that optimize performance and impact.These challenges are real—but they're solvable. With IRIS Foundry, plants move beyond piecemeal improvements and toward holistic, AI-powered transformation.

1.

Real-time CNC machine monitoring: From data to uptime

CNC machine fleets are the heartbeat of modern manufacturing, but visibility gaps and delayed response times often limit productivity. The IRIS Foundry-based CNC monitoring application addresses this head-on with real-time dashboards, pre-built industrial protocol connectors (MTConnect, OPC UA, FOCAS, SINUMERIK), and cross-platform access.

Operations leaders can monitor machine status, utilization rates, and root causes of downtime in real time, enabling data-driven interventions. The system offers:
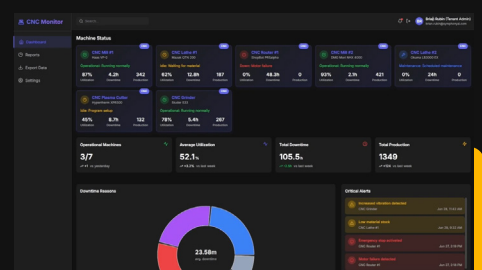
Live dashboards with detailed machine performance and alerts

Multi-device access for shop floor flexibility

Drill-down timelines for operational state mapping

Integration with third-party tools like Postman for automated responses

This isn't just visibility—it's control. Developed in minutes, the app empowers your team with insights they can act on immediately, helping reduce unplanned downtime and increase overall equipment effectiveness (OEE).

2.

Smarter SIP/CIP: Redefining clean with real-time analytics

For industries where hygiene is non-negotiable—like pharma, food, and chemicals—Sterilize-In-Place (SIP) and Clean-In-Place (CIP) operations have long been a compliance burden. But IRIS Foundry turns legacy cleaning into strategic advantage with granular tracking, real-time dashboards, and FDA-readiness out of the box.
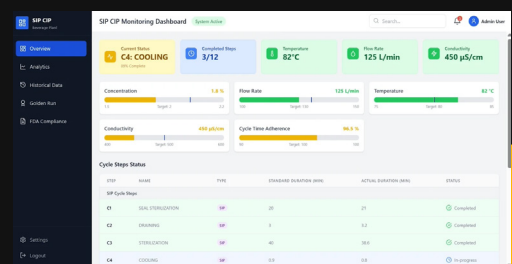
Key innovations include:

Live visibility into each step of the cleaning and sterilization cycle

FDA compliance dashboard for automated reporting and deviation tracking

Golden Run comparisons to benchmark against ideal performance

Detailed analytics on temperature, flow rate, conductivity, and duration

By replacing manual logs and outdated systems with unified insights, teams can proactively correct issues, streamline audits, and elevate cleaning performance from reactive to optimized.
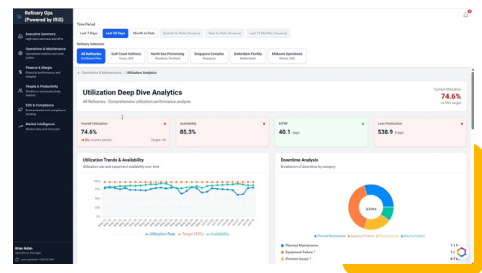
3.

AI-powered refinery intelligence: Executive insights, actionable impact

In complex refining environments, the ability to synthesize data across operations, finance, workforce, and ESG is key to long-term performance. The refinery insights application built on IRIS Foundry delivers precisely that.
This AI-powered system provides:

Executive summaries with AI-generated work orders

Integrated financial and sustainability metrics

Interactive dashboards for KPIs, throughput, and downtime

Real-time operator scheduling and workforce insights

Root cause analysis and margin optimization tools

Market data simulation for "what-if" profitability scenarios

It enables faster decisions at every level—from the control room to the boardroom—driving higher productivity, regulatory compliance, and financial outcomes.

From insights to action—faster than ever

Across CNC operations, sterile process management, and full-scale refinery oversight, IRIS Foundry proves that digital transformation doesn't need to be a years-long journey. With rapid app development, seamless data integration, and embedded AI, your teams can move from data to decisions in minutes—not months.

For Vice Presidents of Plant Operations, the takeaway is clear: **IRIS Foundry is more than a platform—it's an accelerant for operational excellence.** Whether you're optimizing machines, validating compliance, or managing multi-site refinery performance, the path to smarter, faster, safer operations starts here.

Let's reimagine what's possible—today.

Sign up for a complimentary, personalized Bootcamp ▷▷

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