

# Sight Machine Operator Agent



Agentic AI, 3D Digital Twins and Applications in a unified AI data platform

Turn shop floor data into instant decisions with data-based insights, immersive 3D production monitoring, and intuitive operator applications. Powered by the unified innovation platform of Sight Machine, NVIDIA and Microsoft.

## Solution is ideal for

- ✓ Equipment Operators
- ✓ Line Supervisors
- ✓ Process Specialists
- ✓ Maintenance Managers

## Featured Products

[Sight Machine Data Platform for Industrial AI](#)  
[NVIDIA Omniverse](#)  
[Microsoft Fabric](#)  
[Microsoft Azure AI Foundry](#)

## The Challenge

### 1. Operators often lack data-based insights they need to make decisions

Equipment operators frequently manage multiple machines, often covering for absent workers. Their days are overwhelmed with time spent troubleshooting problems, managing product, packaging, and shift changeovers, and writing shift handoff reports. Critical decisions about equipment, quality, and line speed must be made instantly—but without the right guidance, operators stay stuck fixing problems instead of preventing them.

### 2. Critical institutional knowledge is lost each shift, each day

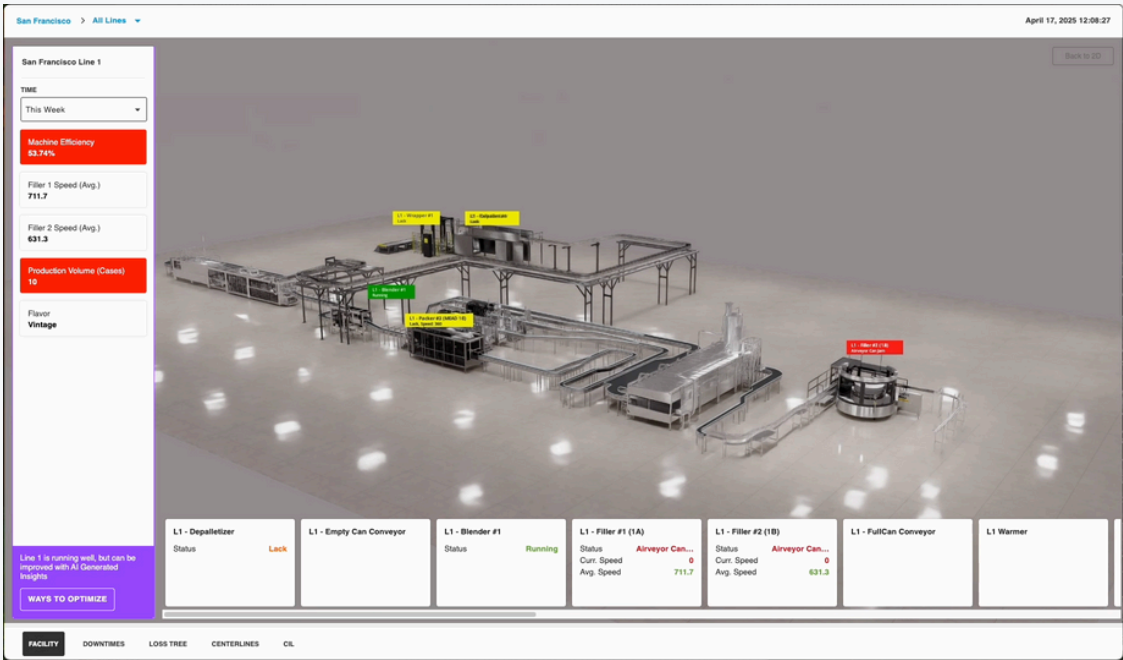
In plants around the world, teams share information about the last shift's top losses, equipment stops and scrap, root cause information, and solutions during daily morning meetings and shift changes. Most of this information is lost in shift report logs, entries in spreadsheets, or comments on erasable whiteboards or paper. The same problems resurface week after week because solutions never get properly captured or shared across the organization.

### 3. Limited visibility of the complete line makes coordination and decision-making difficult

Although operators excel at managing their immediate equipment, they do not have sufficient visibility into upstream and downstream issues that directly impact their machine. When issues happen upstream or downstream, precious time gets wasted walking the large production line or coordinating through radio communication. Critical decisions get made with incomplete information because no one can obtain a complete understanding of the full production line.

# Our Solution

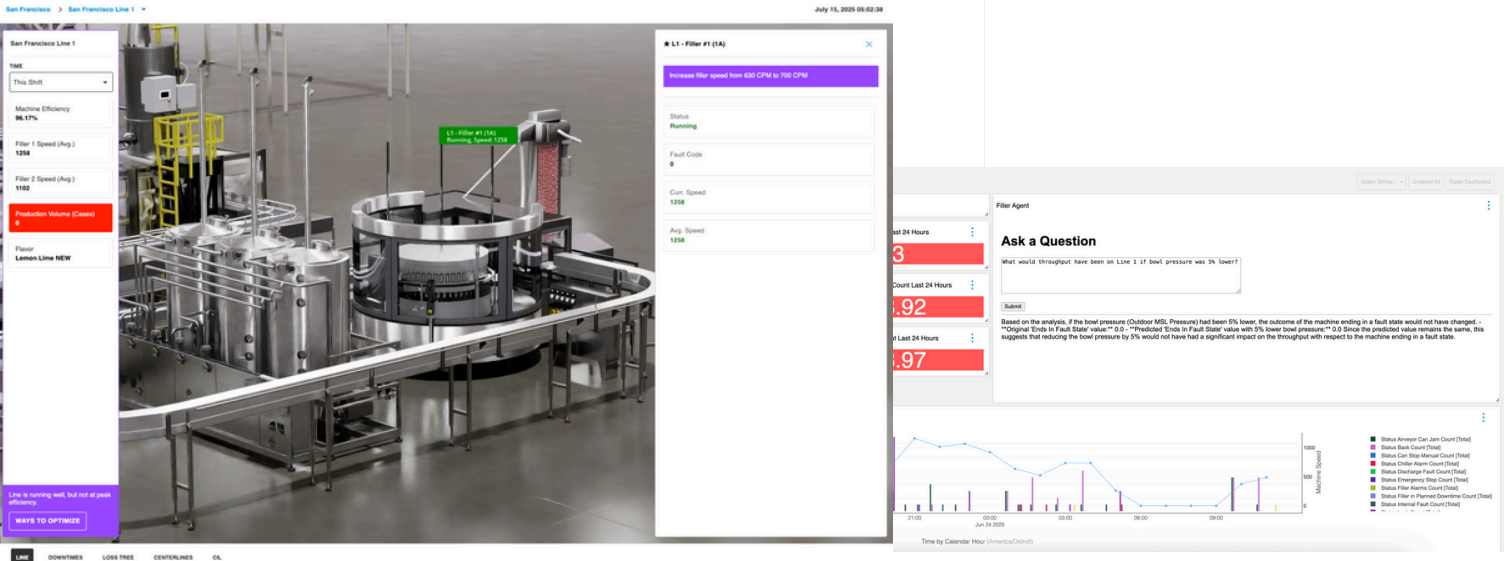
Sight Machine's Operator Agent provides operators on the shop floor with agentic AI recommendations under varying line conditions, real-time data applications, and physical accurate 3D digital twins to accelerate decision-making every shift, every day



## Leverage Agentic AI Insights

Sight Machine's agentic AI recommendations are tailored to real-time conditions, enabling Operators to decide on machine setting changes, identify root causes, detect anomalies, and take corrective and preventive actions. Machine setting recommendations are provided for the current product and line conditions via Operator CoPilot.

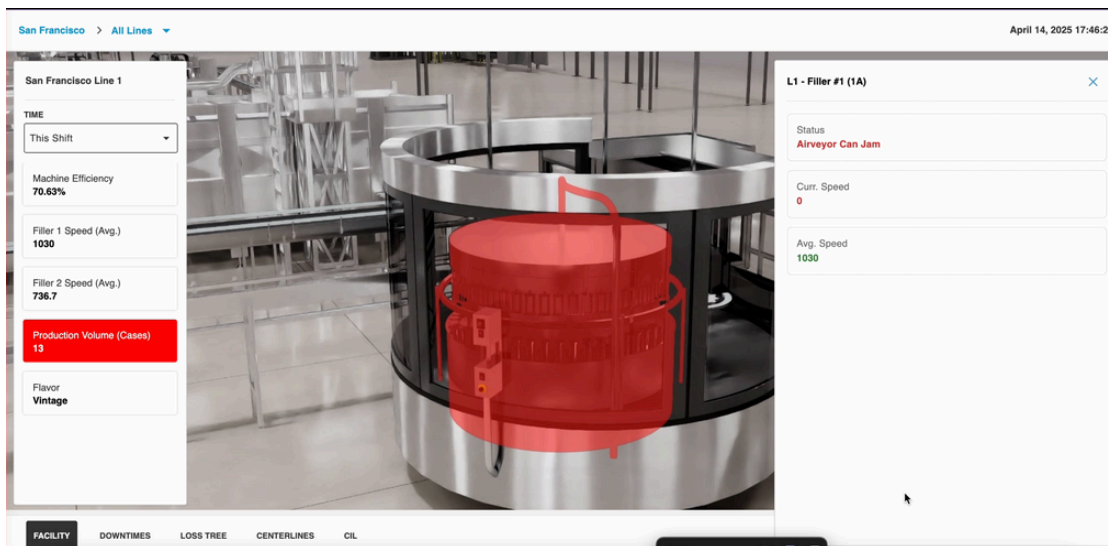
All recommendations are surfaced directly in the Sight Machine UI and also integrated into the 3D Digital twin, which is built with OpenUSD and NVIDIA Omniverse technologies and rendered in real time with NVIDIA A10 RTX GPUs on Azure. The Operator Agent leverages the Azure AI Foundry Agent Service and is part of its Agent Catalog.



## Resolve critical problems with immersive 3D line views that pinpoint the exact location of equipment failures and defects in real-time

Operators and line teams now have exactly the same comprehensive view of the production line, making collaboration seamless. Identify disruptive downtimes and defects anywhere on the line, as soon as they occur using 3D views of the full production line.

The complete line view provides insights into upstream and downstream events such as faults and defects, equipping teams with all the information they need to make quick and accurate decisions. No more guesswork, no more long walks across the plant floor—just clear, actionable visibility when and where it's needed most.



## Capture critical human insights as human-labeled data for AI/ML models

Sight Machine's tablet-friendly applications such as Downtimes and Centerlines capture root cause information for equipment downtimes and production process non-compliance quickly and efficiently. Every operator's insight gets fed back into Sight Machine's data foundation as human-labeled data, training AI/ML algorithms to become smarter over time.

Institutional knowledge is preserved and amplified, turning every problem solved into a learning opportunity for the entire operation.

