Palantir

Palantir Foundry for Semiconductors

INDUSTRY DISRUPTION

The global shortage of semiconductor and PCB products has sent rippling affects across semiconductor and microelectronics companies, and adjoining industries – from automotive and aviation to consumer goods.

Manufacturers are struggling to purchase the required raw materials and build up production capacity to meet the demand. Supply chain disruptions, increasing lead times, and staffing shortages have compounded these issues.

Those who can scale up production to meet the market can become the trusted leaders for decades to come.



Foundry for Semiconductors gives you a deeper view of your supply chain and production landscape, enabling you to unblock bottlenecks, increase throughput, and make data-informed decisions.

CHALLENGE 01

PRODUCTION SCALING ↘

As production struggles to meet demand, bottleneck processes become the limiting factor in how quickly products can be produced. Many manufacturers are looking to make CAPEX investments and improve processes to alleviate these bottlenecks and increase the throughput of the value chain.

WORKFLOW 01

Production Optimization

Gains in production throughput can be achieved on shorter timescales without capacity increases. Standard scheduling processes often do not account for real-world actives such as set-up configurations, shift times, and changes in maintenance calendars, which can lead to inefficient build times. By accurately modelling the full value chain, Palantir Foundry can optimize product mixes, production schedules, and maintenance times to fully utilize existing capacity.

WORKFLOW 02

Disruptions and Yield

Monitoring equipment performance can enable early alerting on potential production issues such as unplanned downtime and decreased yields. Foundry provides streaming and alerting capabilities for sensor, MES, and other data, to quickly identify possible equipment issues before they cause disruptions in the production line.

WORKFLOW 03

Strategic CAPEX Simulation

Foundry enables a long term and strategic view of capacity utilization, allowing users to make informed CAPEX decisions that maximize ROI. Foundry utilizes a digital twin of the full value chain to simulate increases in capacity, movements of bottlenecks, and higher throughput, giving a complete picture of strategic growth.

CHALLENGE 02

SUPPLY CHAIN MANAGEMENT ↘

Global supply chains are becoming increasingly stretched, worsening the challenges associated with sourcing raw materials and preventing inventory bottlenecks. Standard supply chain point solutions often struggle to deal with the complexity of navigating various shortages and can prevent inventory managers from optimally triaging issues and implementing solutions when they are needed most.

WORKFLOW 01

Disruption Management

After a supply chain disruption occurs, like an equipment shutdown or raw material shortage, inventory managers need to immediately understand downstream impacts and implement short-term solutions. Disruption management tooling in Foundry can quickly show the scale of a disruption, from raw materials through to finished goods, and suggest potential solutions prioritized by relevant production and sales KPIs.

WORKFLOW 02

Clear to Build

Standard MRP processes implicitly assume the availability of raw materials from suppliers. When this assumption breaks down, it is important to understand what can be built and which bottlenecks are impacting production. Foundry's clear to build module gives visibility into free and blocked production processes as well as future bottlenecks based on existing and incoming stock.

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