DATA SHEET

C3 AI Reliability

Take Early Action to Improve Asset Performance

C3 AI® Reliability is an AI-enabled predictive maintenance application that helps reliability engineers, plant management, and operations executives maximize operational uptime and productivity.

20-50%
reduction in unplanned downtime via early detection of anomalous activities

15-25%
reduction in maintenance costs via reduction of overall downtime and over-maintenance

up to 99%
reduction in false alert volume via advanced AI-based risk monitoring

10,000+
equipment and 3 million sensors monitored for global energy company

Today, many enterprises rely on time-based and siloed systems to monitor equipment health. However, these systems do not provide sufficient operational visibility nor a predictive, risk-based approach to equipment operations, resulting in unplanned downtime and lagging operational performance.

C3 AI Reliability is an AI-powered predictive maintenance application that identifies reliability risks in advance to help enterprises maximize uptime, reduce costs, and improve productivity. The application provides a holistic view of operations by unifying various types of data from disparate sources such as data historians (e.g., sensor data), CMMS systems (e.g., maintenance records, MRO equipment and materials), and other operational systems (e.g., shutdown events, operating procedures, equipment manuals) into a single, virtual representation of physical assets and processes.

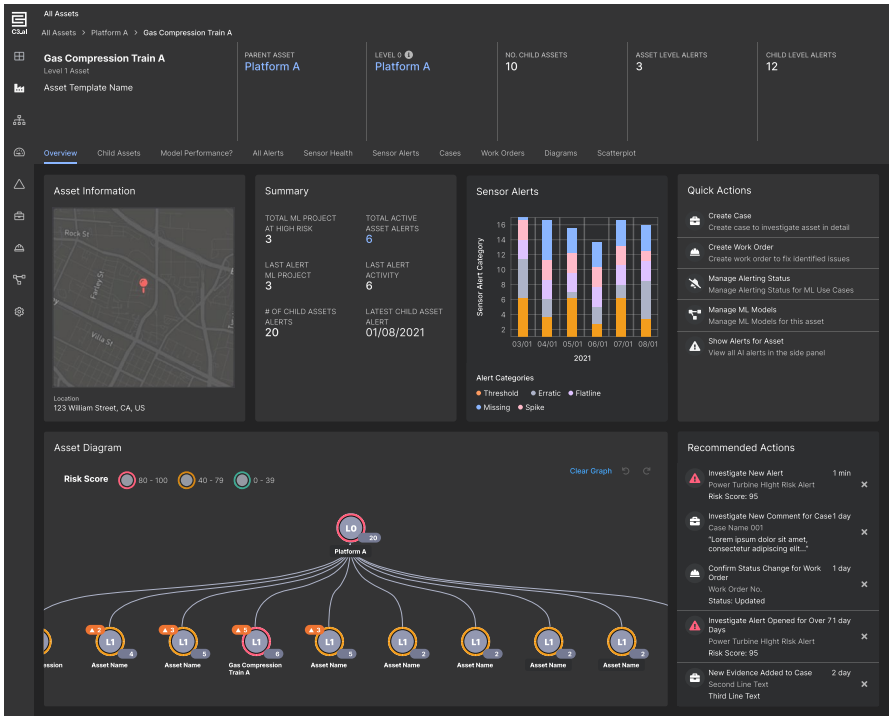

Figure 1. *C3 AI Reliability Asset Details Page allows end users to review asset health alerts, sensor health alerts, and related cases and work orders in a single aggregated view.*

Feature Summary

- **AI-driven predictive maintenance** – Leverage AI to identify equipment issues that impact asset reliability and operational performance in advance.
- **Conversational search and chat** – Powered by C3 Generative AI, ask conversational questions to quickly access operational know-how and AI insights.
- **Codified subject matter knowledge** – Unify and leverage domain knowledge for AI insights using NLP and deep learning capabilities.
- **Prioritized alerting** – Improve worker efficiency by reducing the number of unnecessary alerts through AI-enabled risk-based modeling and prioritization.
- **Failure mode identification and recommended actions** – Utilize autogenerated failure modes and corrective actions based on out-of-the-box failure mode libraries.
- **Evidence packages** – Drill down on individual risk factors contributing to AI alerts to understand how various factors impact system reliability.
- **Sensor health** – Leverage ML to monitor sensor networks, identify malfunction sensors, and diagnose sensor failures.

Applying proven, out-of-the-box machine learning algorithms (e.g., anomaly detection) on top of the unified data, C3 AI Reliability identifies high-risk system behaviors and provides prioritized alerts for engineers. The AI models are traceable and explainable, allowing users to drill down to individual risk drivers (e.g., specific sensors). User-friendly model operations features allow data science teams to easily monitor and adjust AI models over time.

C3 AI Reliability drives efficient decision-making through automated failure mode analyses and integrated investigative workflows. For each risk, the application identifies potential failure modes and provides recommended actions based on pre-integrated failure mode libraries and institutional knowledge. Users can connect to existing maintenance and work order systems or leverage the in-app case management workflow to take rapid action.

Pre-integrated with C3 Generative AI, end users can easily access and interact with AI insights and codified domain expertise through an intuitive search and chat interface. The application leverages natural language processing and deep learning capabilities to encode institutional knowledge (e.g., best practices, operating procedures, and field notes) and provide AI insights in natural language (e.g., alert summaries).

Using pre-built templates for assets, ML models, and user interface, C3 AI Reliability can be deployed across wide variety of asset types and equipment (e.g., valves, compressors, pumps, turbines, generators, towers, chillers, and transformers) in a matter of weeks. With the underlying configurability and flexibility capabilities, the application can easily be scaled to monitor fleets of assets and facilities across the globe.

C3 AI Reliability has been driving tangible business value across a wide range of industries including manufacturing, pharmaceuticals, energy, utilities, CPG, heavy industrials, and more.

Feature Summary (cont.)

- **Integrated, collaborative workflow** – Allow monitoring, plant, and maintenance teams to manage and collaborate on alerts, cases, and work orders through a shared investigative platform.
- **Digital diagrams** – Parse physical diagrams to connect sensor IDs and asset IDs to the digital model of assets and operations and build out a clickable diagram to contextualize monitoring.
- **Asset templates** – Rapidly construct a digital representation of systems and assets, complete with equipment monitoring metrics and KPIs.
- **Scalable AI** – Scale quickly to large fleets and across types of assets using asset templates and end-user configuration of asset hierarchies, failure mode libraries, and ML models.
- **Model ops** – Monitor and manage ML model performance at scale and over time with built-in model monitoring, configuration, re-training, and deployment features.
- **Performance benchmarks** – Compare regions, facilities, and systems based on configurable reliability and performance metrics.
- **Bi-directional integration** – Seamlessly interface with existing software (e.g., CMMS systems) to maintain accurate and near-real time records.

Figure 2. *C3 AI Reliability offers a rich and configurable dashboard to visualize operational KPIs and AI insights of system reliability and sensor health.*

Proven Results in 8-12 Weeks | **Visit C3.ai/get-started**