



DATASHEET

Manufacturing Intelligence

Transforming Industrial Data into Actionable Information

Each day, people, processes, and devices produce vast amounts of timeseries and transactional data from the plant floor. However, without the operational and business context, this data's value is restricted. To stay competitive, it is essential to harness this industrial data and swiftly convert it into relevant business information accessible throughout the organization.

LOGICAL SYSTEMS Manufacturing Intelligence app offers self-service access to actionable insights that facilitate ongoing performance enhancements across your organization.

Summary

The Manufacturing Intelligence app bolts on top of one or more Inductive Automation® Ignition™ Historian installations to automate the extraction, transformation, and storage of operational KPIs, metrics, and relevant contextual information from various data sources. By providing intuitive analytics and dashboard-based monitoring of metrics in Ignition™ Perspective apps, it empowers employees and decision-makers throughout the organization to make quick and confident assessments.

Customer Value

- Enhance plant performance by enabling operational stakeholders to visualize and analyze key metrics in near real-time.
- Release the data confined in various spreadsheets and disconnected operational systems to automatically generate relevant reports that align performance indicators with your overall business strategy.
- Discover new optimization opportunities that may be concealed within separate functional areas or datasets.
- Increase the return on investment for your industrial assets by establishing a unified version of truth across your plant and enterprise systems, offering greater transparency into operations.

Manufacturing Intelligence boosts operational efficiency, asset utilization, and sustainability by enhancing transparency and supporting decision-making.

It provides the necessary information and insights to grasp the actual costs and profit contributions from your operations. By delivering a unified version of truth throughout the organization, stakeholders can better align with business objectives and make quicker, more informed decisions.

Users can analyze and map performance data, compare key performance indicators like OEE across multiple sites, and monitor performance against the most critical metrics.

With advanced visualization and analysis tools, Manufacturing Intelligence empowers users to enhance performance across the entire process.

Leverage Data to Gain Competitiveness

Industrial operations utilize various software systems and spreadsheets to efficiently and securely manage daily activities. These systems produce substantial data sets due to the speed of processes and product movement. Typical examples include process data, alarm data, material logs, production records, consumption figures, execution and asset utilization logs, quality metrics, energy consumption, and operational expenses.

Consequently, companies accumulate vast amounts of data across different silos, hindering their ability to generate timely and relevant reports. This limitation prevents them from accurately assessing or comprehending operational performance in relation to their strategic goals.

Relying on spreadsheets for metric calculation and analysis is ineffective. Often created retroactively, spreadsheets quickly become unsustainable and overly complex for collaborative efforts within an operation.

Overcoming the Big Disparate Data Challenge



Manufacturing Intelligence tackles the issue of managing industrial big data through a standard, readymade software solution.

The Manufacturing Intelligence app offers a user friendly, non-intrusive method for analyzing operational data and managing information.

It allows for the extraction, transformation, and storage of historical operational performance metrics from both timestamped and relational structured data sources. Ongoing metric calculations provide you with a consistently updated and precise view of your operational performance.

Derive More ROI from Existing Investments

Manufacturing Intelligence enhances your current plant floor and enterprise systems rather than replaces them. It adds the necessary information, context, and insights to foster operational and financial improvements throughout your organization.

This solution offers a cost-effective alternative to the various spreadsheets and custom reporting tools that plants or enterprises often rely on to track operational metrics. By implementing a sustainable, shared information model, Manufacturing Intelligence ensures a consistently updated "single version of the truth" and allows for self-service access to data.

It is applicable across all manufacturing sectors and continuously calculates essential metrics to evaluate the performance of individual plants, multiple plants, or overall infrastructure. In contrast to traditional business intelligence tools that typically update daily or require manual intervention, this solution delivers near real-time visibility into your progress against selected metrics.

Whether your data originates from the Ignition™ Historian or LOGICAL SYSTEMS apps like MES, ERP, LIMS, or other enterprise or legacy systems, Manufacturing Intelligence effectively bridges the IT/OT divide.

By providing the information model that data warehouses and enterprise business intelligence tools require, the system can continuously analyze your data and automatically compute the KPIs necessary for effective business management.

Drive Effective Collaboration

Timely information visibility enables employees and decision-makers to adjust their planning, scheduling, and actions. Manufacturing Intelligence connects data for a comprehensive understanding across various core functions, domains, and operations, regardless of data location.

This automated process of contextualizing data enables:

- Identifying and standardizing best practices
- Aligning operational activities with business objectives
- Removing inefficient and costly data extraction and transformation processes
- Decreasing response times

The capability to analyze metrics within context generates insights that enhance margins (for instance, in business unit operations), reduce costs through optimized energy and raw material usage, and improve operational efficiencies by increasing throughput, quality, and asset utilization. This promotes a culture focused on performance and continuous improvement throughout the organization.

Data Store

All metrics and contextual information are stored in an open information model. This model offers a unified version of the truth that individuals, data warehouses, and enterprise business intelligence tools require to derive strategic insights from industrial production data.





Manufacturing Intelligence Clients

Manufacturing Intelligence clients allow users to access published dashboards on Ignition™ Perspective projects. Users can brainstorm, create, explore, and navigate the Intelligence data as customized content, featuring similar visualization and drill-down analysis capabilities.



Efficient data management ensures quick response times, even when processing large amounts of Industrial Big Data. Compatibility with various web browsers and mobile devices enables access to Manufacturing Intelligence dashboards anytime and anywhere.

Manufacturing Intelligence provides preconfigured information models and dashboard content for LOGICAL SYSTEMS software applications, including MES Software, Electronic Batch Management, and enhanced Historical and Alarm databases.

This ready-to-use content enables users to get started in minutes, offering new insights and immediate value right after configuration.

For customers seeking user-friendly tools, Manufacturing Intelligence provides accessible data visualization options that allow individuals to create and share customized charts, interactive reports, and collaborative dashboards.

This independent approach effectively supports your industrial and operations teams without requiring them to become IT specialists. Manufacturing Intelligence Clients allows users to easily visualize and analyze data using straightforward drag-and-drop features.

A variety of data visualization elements are offered, including grids, charts (line, bar, pie, bullet), and maps (geographical, heat, tree), all designed to facilitate quick comprehension of information or conduct root cause analysis. With just a few extra clicks, users can design and publish interactive dashboards that include drill-down functionalities.

LOGICAL SYSTEMS Manufacturing Intelligence

Enjoy seamless, automatic updates and scalability for your business needs.

Translate time-series data into intuitive charts and dashboards.

Enable faster, more informed decision making for all users, with up-to-date newsfeeds, intelligence, and alerts.

