THE PLEX SMART MANUFACTURING PLATFORM

MANUFACTURING EXECUTION SYSTEM

PLEX

A ROCKWELL AUTOMATION COMPANY

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Looking to grow? Get your digital house in order to control the plant floor.

In today's competitive world of manufacturing, effective and efficient plant floor operations are required by a manufacturer to stay competitive. Excess inventory, late deliveries, excess scrap, and poor quality can result in dollars wasted. By eliminating these wastes through lean manufacturing practices, a manufacturer can reduce production costs, increase throughput, and set themselves up for sustainable growth.

Connecting the plant floor and the top floor.

Typically, the plant floor operation is like a black box to Enterprise Resource Planning (ERP) systems and thus is invisible to executives outside of production. Planners in the back office, preparing the production plan, need visibility into plant floor resources in order to deliver an achievable master production schedule. If you're recording production and scrap on paper, it probably doesn't get reported for a day or two (or more) so tomorrow's production stand-up is actually using data that's too old to matter. Without an MES that works with your ERP, big gaps in critical business information may result, making it difficult to make timely decisions.

Plant floor visibility enables traceability and quality.

A manufacturing execution system (MES) is your eyes and ears on the plant floor to help you manage production effectively. An MES monitors inventory movement and location as raw materials get enriched into finished goods. Further, an MES enforces quality inspection procedures to make sure you're shipping only good product to customers which can protect your company from expensive and disruptive recalls. By integrating an MES with your ERP, you can better coordinate production with business processes and be more proactive in delivering quality products in a timely, cost-effective manner.

MANUFACTURING EXECUTION SYSTEM

Error-Proofed Production Control

Plex MES delivers a real-time, paperless production system that initiates, guides and choreographs processes as specified by the control plan. It connects and synchronizes each workcenter to the production schedule and records production and quality data digitally and accurately. Real-time data collection and reporting ensures that issues become visible instantly, giving operators and supervisors better tools for making real-time control decisions.

High Resolution Visibility

For every action on the shop floor there is a transaction in Plex to record who did what, when and where. The result of this precise DNA is a detailed historical record that can track back to where issues may have originated—especially during work-in-progress. This visibility helps you maintain lower inventory levels, tying up less capital on the floor while cutting carrying costs going forward. Real-time analytics and dashboards let you monitor critical KPIs (key performance indicators) for quicker, more confident decision-making. Being able to monitor shop floor assets helps you improve performance and reduce unplanned downtime.

Connected by Design

To enable the visibility and control you need on the shop floor, you need a flexible, configurable connection to your top floor ERP. Plex MES connects all of the capabilities you need in an MES with a single source of truth that is easy to implement and complements your ERP with a platform of manufacturing solutions from MES to Manufacturing Operations Management (MOM).
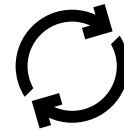
MANUFACTURING EXECUTION SYSTEM

Error-Proofed Control

- Common control panel executes production processes driven directly from the control plan to reduce cycle times and improve efficiency

- Machine integration tools connect with your shop floor equipment to automate production recording and to enable Industrial IoT

- Paperless, easy-to-use, and error proofed makes doing the right thing, the easiest thing to do

- In-line quality control to govern quality activities and ensure check sheet compliance

High Resolution Visibility

- Real-time inventory data visibility with unsurpassed accuracy—including work-in-progress–collected at the point of production, movement and shipment to reduce inventory and carrying costs. Mitigate recall risk and/or exposure of recalls with easy access to accurate, database-driven information for product traceability, genealogy and lot management—from anywhere, at any time, on any connected device

- Real-time manufacturing intelligence to monitor critical KPIs for quicker, more confident decision-making

- Visibility to performance of shop floor assets to enable continuous improvement, reduce unplanned downtime, and add flexibility to operations

Connected by Design

- Flexible, configurable, cloud-native solution that is easy to set up, copy to other plants, and standardize across the enterprise

- Scalable shop floor solutions from basic MES (production monitoring) to more options-rich MOM (shop floor control) that complements your ERP with the manufacturing capabilities it lacks

- Asset performance monitoring to reduce disruptions