



MANUFACTURING EXECUTION SYSTEM SOLUTIONS

OUR SOLUTIONS

EN Automation is a leading systems integrator with expertise in modernization and digitalization solutions that help clients remain competitive in an unpredictable climate. A Manufacturing Execution System (MES) is a powerful tool that enables manufacturers to optimize the efficiency of their operations, maintain quality, and comply with safety, regulatory, and industry standards while also adjusting to changing demands and industry trends.

MES addresses many challenges manufacturers face today including resource and labor shortages, increasing energy costs, supply chain disruptions, dynamic shifts in the market, and more. MES effectively integrates islands of automation to provide a unified method to monitor and control disparate systems across the manufacturing facility. This is accomplished using real-time, historical, and data from other sources to connect the production floor control systems to the corporate business systems. The resulting integrated system empowers manufacturers to improve communication, achieve

better operational coordination, easily access performance analytics, and have a single point for process visualization. EN Automation's professionals can collaborate with clients to design and implement MES solutions to meet their unique specifications.

Manufacturers can realize significant cost savings by leveraging MES to maximize efficiency and optimize operations.

TYPICAL FUNCTIONS OF MES INCLUDE:

- Data acquisition and storage
- Downtime monitoring and reporting
- Track & trace
- Production system performance analysis
- Performance tracking and management
- Predictive/preventative maintenance
- Recipe management
- Resource management
- Scheduling
- Quality management
- Document management
- Reporting

There is a growing need for solutions that address manufacturing challenges and MES focuses on many common pain points. One of the primary benefits of implementing MES is improved efficiency, which is accomplished by:

- Optimizing processes with data analytics
- Providing real-time data for immediate reaction and decision-making
- Improving system operation and uptime through online maintenance, diagnostics, and workflow guides
- Identifying bottlenecks and optimizing production processes (achieved through data historian information provided to modeling software)
- Streamlining production by integrating islands of automation
- Tracking of Operational Equipment Effectiveness (OEE)
- Minimizing waste and improving sustainability

EN Automation employs a phased approach to MES design and implementation that includes the following steps:

1	PRIORITIZE <ul style="list-style-type: none">• Stakeholder involvement• System assessment• Automation roadmap development
2	DIGITALIZE <ul style="list-style-type: none">• Install / upgrade data collection systems• Robust communication network design• Data aggregation and management
3	ANALYZE <ul style="list-style-type: none">• Overall Equipment Effectiveness (OEE)• Quality reports• Key Performance Indicators (KPIs)
4	VISUALIZE <ul style="list-style-type: none">• Customized dashboards• Remote operation and monitoring• Situational awareness
5	OPTIMIZE <ul style="list-style-type: none">• Preventive / predictive maintenance• Preventive controls• Control system modernization
6	STANDARDIZE <ul style="list-style-type: none">• Scalability across plant / enterprise• Integration with other business systems• Implementation of standard metrics

EN Automation is a CSIA-certified systems integrator and adheres to best practices that meet rigorous industry standards. We provide the complete spectrum of automation solutions, supporting over 50 automation platforms and we carry the highest levels of certifications from many of the industry leading hardware and software providers. This provides our clients with the assurance that the solutions we deliver will meet or exceed their expectations.

Contact us for more information to learn how EN Automation can provide the key to unlock a higher level of efficiency and a competitive edge that comes from implementing a Manufacturing Execution System.

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