



CASE STUDY

DXQCONTROL Manufacturing Execution System

THE CHALLENGE

Our customers need to meet demand and secure profitability in increasingly dynamic and competitive markets; manufacturing needs agile supply chains, synchronized production operations and real-time plant visibility. These drivers ask for an integrated IT infrastructure that controls all manufacturing elements, materials, equipment, staff, specifications, and procedures that integrate with business and operation systems as well as providing the link between enterprise systems (e.g., PLM/ERP) and the production floor.

Manufacturing Execution Systems (MES) should be designed to handle production management and execution, coordinate systems within factories, standardize production, and keep manufacturing processes aligned with supply chain activities.

THE SOLUTION

Based on years of experience in automotive manufacturing, Dürr's MES and SCADA offering has evolved into a mature software solution that leverages modern technologies to improve operational goals and objectives. This includes a strong focus on OEE as a whole or on its individual components: maintenance, quality and performance. **DXQ** control will evaluate and optimize this KPI, through functional modules such as monitoring, order management, logistics control, quality management and business intelligence.

The unique combination of end-to-end connectivity with high-fidelity process monitoring enables customers to generate a seamless life cycle for their product. This traceability is available from the bare coil to the finished vehicle at the end of the line.

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Plant Monitoring provides managers and operators with the necessary toolset to evaluate the performance and quality of their production line. A dedicated overview of the status of each production line as well as the complete factory helps to identify the root cause of production issues quickly and effectively. At the same time, a historic overview and trend calculation helps to highlight further optimization potential in the plant.

Production Control translates the order information into specific production steps; taking the necessary information from the ERP for the vehicle construction, such as bill of material, upcoming orders, cycle time, and process adjustments. A mixed-mode production in combination with the complexity of the supply chain becomes more manageable with this toolset.

LOGISTICS CONTROL

Advanced Planning and Scheduling (APS) and Material Flow Tracking (MFP) provide more detailed sequencing and more transparent logistics control; a powerful tool that monitors and optimizes every step of production through a single central solution.

In addition to traditional conveyance methods, a dedicated AGV fleet control service is fully integrated into the toolset.

QUALITY MANAGEMENT

Providing real-time transparency on product and process quality enables users to achieve the highest possible quality standard by inking process monitoring with vehicle data to generate a unique fingerprint for each vehicle within the factory. Automatic process traceability, manual visual inspection, and third-party system integration combine to create a complete quality record of each vehicle. Identifying and eliminating systematic errors is easier than ever.

Business Intelligence provides the backbone of the factory in terms of data storage and reporting. With a central Data Ware House (DWH), all information for **DXQ** products, legacy systems, and third-party solutions is available in one place. This enables users to generate the reports they need, anytime, anywhere. Through the integration of a powerful interface and editor, users have the option of creating and manipulating reports according to their needs.



Advanced planning & scheduling



Surface quality check



Business intelligence



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