MES Software Legato Sapient

QUALITY AND DELIVERY RELIABILITY: THE BASIS FOR CUSTOMER SATISFACTION

A product recall is the worst-case scenario for any company. It causes enormous costs and makes for negative headlines. The best way to avoid one is to identify quality problems in production at an early stage and take immediate action. If a recall is necessary in spite of everything, it must be carried out quickly and in a targeted manner.

However, the ever-increasing demands and increasingly complex processes are difficult for humans to handle by themselves. Automated solutions are needed that can support both the guarantee of quality standards and the continuous improvement of production processes. Based on the evaluation of historical data, valuable insights can be generated to support humans in decision making. Systems for "tracking & tracing" can provide this support in a proven way. Tracking refers to the actual status and is the basis for subsequent tracing. In tracking, production steps and parameters are automatically recorded and logged in real time.

Tracking & Tracing in everyday production

In practice, tracking & tracing is easy to implement: Relevant machines and workstations are equipped with reading points (handheld and inline scanners) and serve as identification points. The components to be identified (raw materials, parts, intermediate products, etc.) require a uniform identification number (e.g. barcode).

Each production unit is recorded when it enters or leaves a machine or workstation, and the product identifier (PU ID) is registered via barcodes or RFID. The same applies to all components and materials, as well as machines and process data for the respective production process or operation. All data and data relationships are stored in the tracking and tracing system.

However, many production companies only use tracking and tracing in a rudimentary way, because the full potential of such a system can only be leveraged in conjunction with MDE and BDE. An MES solution is needed to implement Tracking & Tracing properly and to obtain a 360-degree view of production.

Transparency thanks to vertical and horizontal data integration

Via the global control station, all product-relevant data is recorded and stored centrally throughout the entire production process - from the raw material to the end product. The central data storage provides immediate data availability and thus transparency for the entire production area and the business level. The use of expensive mobile data storage devices is no longer necessary, eliminating further procurement costs and maintenance efforts.

Automated data collection guarantees high data quality and real-time monitoring of the actual situation. With the help of this information, a production unit can be traced at any time. In addition, it is precisely documented which raw materials, components or auxiliary materials were used for the product. In terms of vertical data integration, data is exchanged across system boundaries (ERP, MES, shop floor).

Legato Sapient also provides aggregated values and key figures as a basis for the continuous improvement process (CIP), for example processing and transport times or the degree of quality. This ensures efficiency gains in terms of costs, time and quality.

Tracking & Tracing as a module of Legato Sapient

Tracking & Tracing is a core function of the MES solution Legato Sapient. It enables seamless tracking and tracing of all products, including all product-relevant data - throughout the entire production process. In this way, a complete image of each production unit is created, a digital twin. This includes all product data (such as order, type, characteristics, quality status), product-related process data (such as torques, temperatures) and product-related machine data (such as status, faults).

Compliant thanks to Track & Trace

From the point of view of legal requirements for product liability and product safety alone, a system for tracking & tracing in production is essential. Particularly in the automotive industry or medical technology, there is an obligation to provide proof of production processes and production parameters. Tracking & tracing is also a condition for being able to evaluate every actual situation and react immediately in the event of unplanned events. This requires transparency about the production status of an order down to the individual part, batch or charge. This necessary level of transparency cannot be achieved with siloed digitization approaches or even by human intervention.

Legato Sapient's Track & Trace module creates this transparency according to the latest technological standards for a production which is perfect in flow.

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