

Increase your OEE!

MORE EFFICIENT MAINTENANCE WITH "LEGATO SAPIENT TPM"

Maintenance is usually associated primarily with costs. But that is not all there is to it. In fact, maintenance offers a lot of potential for becoming a strategic success factor.

This is due to the fact that about half of the production costs are directly or indirectly influenced by maintenance management. In concrete terms: optimisation of the production process in terms of reliability, performance or stability is possible. Using software for your maintenance management gives you valuable insights into the status quo and existing optimisation options. Strategic, planned maintenance management leads to fewer shutdowns, reduces costs and increases the overall profitability of your production.

Optimised maintenance thanks to MES software

The software solution "MES Legato Sapient" from our product provider GEFASOFT offers a variety of different functions, which in their entirety create a comprehensive X-ray image of your production line.

The module for Total Productive Maintenance (TPM) describes work steps and expenses in detail. The function module delivers maintenance plans according to time, usage, status or manual scheduling. It is possible to define responsibilities and deadlines as well as to filter by processing status, work step or task.

Over all, six aspects in particular lead to reduced machine efficiency and thus a reduction in your OEE:

- → unexpected outages
- ightarrow maintenance and adjustment work on the machine
- \rightarrow short-term failures
- $ightarrow \,$ reduced production speed
- ightarrow production errors
- ightarrow unused production capacity

All six aspects can be demonstrably reduced with strategic maintenance management. To evaluate and prevent system downtimes, it is useful to track the development of individual key figures and process parameters.

KPIs such as "MTBF" (Mean Time Between Failures) or "MTTR" (Mean Time To Repair) provide information about the average operating time and repair time of individual systems or production areas. These metrics can be used as a basis to manage specific maintenance operations.





If the MTBF falls below a set limit, preventive maintenance is performed. The maintenance activities are centrally managed in the MES, whereby the due date for the next maintenance order is automatically calculated on the basis of fixed intervals based on a schedule, operating hours or number of units produced.

When maintenance is due, the MES enables the maintenance technician to perform the maintenance via smartphone or tablet. Once the individual steps of the maintenance order have been performed, it is marked as "completed" in the MES and the due date is automatically adjusted. In addition to automatically notifying maintenance technicians when maintenance work is due and performing the operational maintenance activities themselves, there are other helpful innovations.

These include, among other things, the targeted forwarding of information by automatically displaying all relevant information of the local system on the maintenance technician's mobile device based on their location.

Intelligent maintenance management at a glance

Our MES software solution can be operated without the use of additional programs. Thanks to the HTML5 architecture, the responsive design and the intuitive operating concept, "Legato Sapient" is mobile and thus can be used regardless of location. Interactive analyses with drill-down function include boardlet groups for comparable evaluations. Depending on the target group, boardlets can be flexibly compiled and reports can be provided via individual dashboards.

"MES Legato Sapient" employs visual ergonomics for the user. User-friendly and intuitive operation, as well as an optimised information display allow better transfer of information and usability of the tool. The "MDX" (Machine Data eXchange) data gateway provides the central data link to the machine controls. The project editor runs under MS Windows, whereby the runtime as a process/service is platform independent. The SCC offers different interfaces (e.g. ODBC, OPC, send-receive) and enables data acquisition and data entry into the "Legato Sapient" database. The data connection can be made via different protocols, for example TCP/IP, RFC1006, Modbus-TCP, MQTT. An integrated script engine with nearly 200 script commands allows flexible pre-processing of the data.

THE ADVANTAGES OF "MES LEGATO SAPIENT TPM" AT A GLANCE

- Latest architecture technology on premises or cloud ready
- Automatic generation of maintenance orders from time, value, or failure-based maintenance plans
- Detection of insufficient and excessive main-<u>~</u>__ tenance by evaluating the activities carried out and their reasons
- Mobile usability of all functions based on HTML5 architecture
- KPI calculation and integration of other systems such as SAP



Support for CIP

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