

Increase your OEE!

MAXIMALLY EFFICIENT PROCESSES THANKS TO MES SOFTWARE “LEGATO SAPIENT”

Whether you’re talking about industry 4.0, smart factories or digital production: the future of production is digital and data-driven. The clear goal: higher efficiency despite increasing complexity at lower cost. Increasing OEE is the key to this. However, maximum efficiency can only be achieved if there is data transparency. For many production companies, this is precisely where the greatest challenge lies, as data management often gleams with ambiguity rather than uniformity.

Data is often distributed across multiple locations and different repository types. The e-storage takes place both in the main data centers, in public clouds including SaaS applications, as well as on the Edge including remote sites, end devices, and IoT devices. There are conventional structured data, widely varying unstructured data, newer NoSQL data types and data within container micro services. The use of MES software creates structure and transparency. And the benefit to businesses is considerable: our estimate for a manufacturing company with sales of one billion euros is several million euros in annual profits.

MES software for a complete overview

With the software solution “MES Legato Sapient” from our product provider GEFASOFT you can take a close look at your production. Bottlenecks are quickly made a thing of the past! There are many reasons production can come to a standstill. The more accurately incidents are recorded, the more meaningful conclusions can be drawn. Be it material defects, negligence of employees or defective machines: it depends on the overall context.

Our industry-independent MES solution offers core functionalities such as MDE/BDE and KPIs as well as TPM, tracking & tracing and digital shop floor management. Through horizontal and vertical data integration, our software enables the connection of all production-relevant systems for uninterrupted data exchange. The clear presentation of production data and the simple and interactive functions for analysing current and historical data form a solid foundation for maximally efficient production.



Numerous functional modules for production in flow

Our software solution “MES Legato Sapiens” offers a variety of different functions, which in their entirety create a comprehensive X-ray image of your production. Below you will find a selection of the core functions of our software.



Time models

Time models describe the daily production routine by shifts and breaks. The shift models modeled in it allow a flexible allocation of production times to all machines or plant areas. To simplify parameterisation, separate time models can be saved as templates, which can be assigned to individual days via the calendar. With the target value templates assigned to the time models, it is possible to plan production processes in advance and assign them to individual areas.



Alarm management

The acquisition, visualisation, archiving and analysis of alarms is possible within our software solution. Gantt management tools also simplify message justification and classification by your employees. The analysis of large amounts of data by means of machine learning algorithms provides deep insights into dependencies and causes.



Tracking & tracing

The functional “tracking & tracing” module offers a complete overview of the entire production chain of your production units. A production unit can be a sub-module of production or consist of a “batch” of products. Almost any type of data can be linked to a production unit and used for further analysis (active tracing).



Alerting

“MES Legato Sapiens” provides important messages such as alarms for automatic forwarding to a messaging system to enable quick response and immediate escalation scenarios. The alarm messages are selected through a highly flexible configuration.



Machine and production data acquisition (MDA/PDA)

Our module for machine and production data acquisition enables quick reactions to malfunctions through automatic online monitoring of real machine states without manual effort. Automated monitoring of tolerance and intervention limits is provided by an automated alerting system. Interactive data analysis both bottom-up and top-down creates transparency and clarity.



KPIs

“MES Legato Sapiens” offers automatic calculation of machine-related KPIs such as production net uptime, downtime, piece counter, availability, OEE, TEEP, MTTR, MTBF and others across all hierarchical levels. The software tool accesses more than 60 pre-configured KPIs, and customer-specific KPIs can also be integrated into the system.



TPM

“Maintenance plans” describe work steps, effort and required material 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.



eShopfloor management

The eShopfloor management module provides a basis for better and faster decision-making through automatic data preparation and aggregation of all data from shop floor meetings.

Flexibility for a 360° view of your production

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.

The information from the web front end can be flexibly compiled using what are known as boardlets. Each of the more than 60 standard boardlets provides a specific visualisation and analysis of the data. 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.

Agile development processes are possible with the software development kit and the API within the software solution: development of customer-specific boardlets, fast implementation of customer requirements as well as pre-configured boardlets and visualisation through universal boardlets.

“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.

For a complete view of the production, it is also possible to connect third-party systems to “MES Legato Sapient”. Our software solution visualises data from third-party systems and enables direct access to external systems, without redundant data storage and with real-time data provision. In addition, the development of system-specific boardlets for displaying external data is possible.



Professional project planning tool on board







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 serves for data acquisition and data entry into the “Legato Sapien” 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 central tool for parameterisation and administration of the functions of “Legato Sapien” is the Legato Configuration Center “LC2”. This allows direct access to the database tables of the software solution with well structured and user-friendly interfaces. The flexible adaptation of the integrated tools to the individual working method ensures maximum efficiency in project creation within our software solution “MES Legato Sapien”.

MES LEGATO SAPIENT: YOUR SOLUTION FOR A MAXIMUM EFFICIENT PRODUCTION.

THE ADVANTAGES OF “MES LEGATO SAPIENT” AT A GLANCE

-  Latest architecture technology – on premises or cloud ready
-  Visual ergonomics for intuitive usability
-  Flexible and interactive analysis with individual dashboards and drill-down functions
-  Connection of third party systems
-  Mobile usability of all functions based on HTML5 architecture
-  Provision of a software development kit for needs-based information

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