Press release

From traceability to complete automation in the electronics factory

From MES to MOM: How Limtronik is driving digitalization with software from iTAC

Montabaur, March 27, 2024 – Limtronik is a leading example of a digitalized electronics factory. One reason for this is that the company has consistently driven digital transformation forward from an early stage. Back in the 1990s, Limtronik took its first central digitalization steps with the MES software from iTAC Software AG – starting with traceability for greater transparency – and thus laid the foundation for the increasingly automated factory. Today, three SMT production lines, several assembly lines and machines are connected to the solution that iTAC has developed into a production management system. As a smart factory, Limtronik is now ready for the challenges of the future.

"One of the most important requirements in our electronics factory in order to comply with various standards and industry requirements has been traceability from the very beginning. We therefore implemented the Manufacturing Execution System iTAC.MES.Suite around 30 years ago in order to be able to demonstrate a corresponding track-and-trace system. This resulted in comprehensible, traceable and transparent processes as well as a precise overview. The foundation was laid for error identification and minimization and, as a result, consistently high quality," explains Gerd Ohl, Managing Director of Limtronik GmbH.

MES expanded into an open microservice-based system
Limtronik aims to be highly adaptable and flexible through the digitalization of processes. MES solutions have been an important building block for intelligent factories and digital manufacturing for many years.

"As a stand-alone proprietary system and with its classic range of functions, an MES no longer meets the requirements of the increasingly networked factory. We have therefore developed our MES into the iTAC.MOM.Suite, a Manufacturing Operations Management System. The open MOM acts as a holistic, flexible production management system and offers functions for controlling, optimizing and forecasting production processes," explains Martin Heinz, Board Member of iTAC Software AG.

The MOM system is therefore a further development of the MES – designed for predictable production that makes use of the latest IIoT technology. It brings formerly separate worlds together. The iTAC.MOM.Suite has all the necessary functions for networking and automating processes. It has a modular and scalable structure and can be seamlessly integrated into companies' digital platform strategies thanks to its openness. The microservices architecture makes it possible to provide functionalities in line with requirements.

Low-code and AI methods increase the level of digitalization
"While iTAC's MES has solved classic requirements such as traceability and production management in our company for many years, today it is also important to link production processes and digitalize them end-to-end. iTAC has created a holistic platform for this with the MOM," says Gerd Ohl.

The traceability, production planning and control functions are still essential, but have been expanded to include new applications, including AI and low-code methods. The result is a flexible yet highly standardized system that is also fully scalable and easy to roll out thanks to its template properties. Gerd Ohl explains: "Over the years, we have successively connected the SMT production lines, several assembly lines and machines for electrical testing in the test field to the iTAC solution and are adding more and more modules and

functionalities. In the near future, for example, we would like to introduce a QM module for analyzing and reporting quality data."

The aim is to be able to visualize and analyze the data automatically and in real time in production. The introduction of low-code and AI-based functions for the faster provision of applications is also to be implemented together with iTAC. In addition, the APS from iTAC's subsidiary DUALIS will be used to optimize and save time in planning processes. "The MOM solution enables us to react flexibly to market requirements. We can continue to increase the degree of digitalization as required and are therefore prepared for the future," says Gerd Ohl.

**The Limtronik electronics factory is driving digitalization with the iTAC.MOM.Suite
Image source: Limtronik**

About iTAC

iTAC Software AG, an independent company of the mechanical and plant engineering firm Dürr, provides internet-enabled information and communication technologies for the manufacturing industry. Founded in 1998, the company is one of the leading MES/MOM providers. The iTAC.MOM.Suite is a holistic Manufacturing Operations Management that is used worldwide by companies in different industry sectors such as automotive, electronics/EMS, telecommunication, medical engineering, metal casting and energy. Additional services and solutions for implementing IIoT and Industry 4.0 requirements complete the portfolio. iTAC Software AG is headquartered in Montabaur, Germany and has offices in the USA, Mexico, China and Japan and has a worldwide partner network for sales and service. ITAC's philosophy is to connect people, data and systems.

The Dürr Group is one of the world's leading mechanical and plant engineering firms with particular expertise in the technology fields of automation, digitalization, and energy efficiency. Its products, systems, and services enable highly efficient and sustainable manufacturing processes – mainly in the automotive industry and for producers of furniture and timber houses, but also in sectors such as the chemical and pharmaceutical industries, medical devices, electrical engineering, and battery production. In 2023, the company generated sales of €4.6 billion. The Dürr Group has over 20,500 employees and 142 business locations in 32 countries, and it operates in the market with five divisions.

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