Press release

iTAC and SMC create joint solution by integrating sensor and actuator data into the iTAC.IIoT.Edge

**iTAC shows MES with new monitoring and maintenance function at “productronica”**

Montabaur, November 3, 2021 **–** The MES developer iTAC Software AG and SMC Deutschland GmbH, a specialist in pneumatic and electrical automation technology, are creating new monitoring and maintenance options in production. For this, the partners integrate sensor and actuator data into the MES solution using the iTAC.IIoT.Edge solution. In doing so, the SMC sensor data is transferred to the iTAC.IIoT.Edge via an IoT gateway. The stored data from the sensors and the MES is then analyzed and processed. They form the basis, for example, for automated detection and prediction of production problems in real time. iTAC will present the solution at productronica 2021 from November 16 to 19, 2021 in hall A3, at booth 161.

"In production, undetected leaks in the compressed air system can lead to increased or expensive air pressure consumption and, possibly, to unexpected production disruptions or downtime. For example, if a leak in the compressed air system causes an increased demand for compressed air, the compressor has to use more energy to ensure the supply of compressed air. In most cases, such a malfunction goes unnoticed and thus leads to increased costs. A monitoring instrument can detect increased compressed air consumption at an early stage. However, as the sensor data can show large variations during normal operation depending on the type of product, monitoring instruments with predefined threshold for determining the system status prove to be ineffective," explains Peter Bollinger, CEO of iTAC Software AG.

**Gaining insights from MES and automating processes**

The Manufacturing Execution System iTAC.MES.Suite in conjunction with iTAC.IIoT.Edge is now able to correlate and interpret the measurement data with product and machine information. iTAC's edge software solution combines streaming and batch analytics on a central scalable platform with out-of-the-box access to MES data. In doing so, the iTAC.IIoT.Edge uses data from the sensors in conjunction with the MES data to determine dynamic warning thresholds for various system parameters. The aim is to monitor these in real time.

This is possible with the solution developed by iTAC and SMC. Here, SMC transfers the compressed air sensor data via a gateway into an IoT platform and then combines it with the corresponding MES data to process the relevant data using modern algorithms.

These findings allow abnormal operating conditions to be detected and appropriate maintenance measures to be initiated. Early detection of increased air consumption thus identifies expensive energy peaks. "In general, it is important to avoid increased energy consumption, as this is very cost-intensive for manufacturing companies. With our new functionality, it is possible to quickly correct this energy consumption and thus return it to normal levels," explains Peter Bollinger.

**From the sensor into the MES – iTAC and SMC combine competencies**

iTAC adds its many years of expertise to the solution in the area of controlling and optimizing production processes using MES. In addition, iTAC.IIoT.Edge provides an IIoT solution that allows MES and IIoT data to be linked using modern methods. SMC is incorporating its expertise in the shopfloor area with the sensors and actuators. The IoT platform used is both cloud and on-premises capable. Optionally, a hybrid approach can be selected, which further increases flexibility.

Peter Bollinger says: "As the new instrument is an integrated part of our iTAC.MES.Suite in combination with the iTAC.IIoT.Edge solution, users in production can continue to work in their familiar software environment without having to deal with the technical implementation of the new intelligent monitoring functionalities themselves."

**Ein Bild, das Text, Boden, drinnen, stehend enthält.

Automatisch generierte Beschreibung**

***A glance into the SMC production.***

About iTAC

iTAC Software AG, a stand-alone company of mechanical and plant engineering group Dürr, offers Internet-enabled information and communication technologies for the manufacturing industry. Founded in 1998, the company is now a leading MES manufacturer. The iTAC.MES.Suite is a manufacturing execution system used worldwide by companies in various sectors, including the automotive, electronics/EMS, telecommunications, medical technology, metals and energy industries. Further systems and solutions for implementing IIoT and Industry 4.0 requirements complete the portfolio. iTAC Software AG is headquartered in Montabaur, Germany with offices in the USA, 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 companies with outstanding expertise in the fields of automation and digitalisation/Industry 4.0. Dürr products, systems and services facilitate highly efficient manufacturing processes in various industries. Dürr supplies many industries, including the automotive, mechanical engineering, chemical, pharmaceutical and wood processing sectors. The company has 92 locations in 32 countries and 16,500 employees worldwide.

About SMC Deutschland

Leading manufacturer, partner and solution provider for pneumatic and electric automation technology – SMC Deutschland GmbH offers a broad product range from valves to temperature control units with more than 12,000 basic models and over 700,000 variants for a wide variety of industries. The innovative automation solutions of the company, which is headquartered in Egelsbach near Frankfurt am Main, can be found in the automotive, electrical and photovoltaic, medical, packaging and food industries, as well as in machine tool manufacturing, robotics and automation, among others. SMC generated sales of 152 million euros in the financial year 2020/21 and employs 750 people nationwide. In addition, an area-wide, competent service and sales network is available to all customers.

SMC Deutschland GmbH is part of SMC Corporation, which is represented in 83 countries worldwide with over 31 production facilities. The world market leader for pneumatic automation technology with a market share of 38 percent achieved sales of around 4.5 billion euros in the financial year 2020/21 and employs 20,619 people globally.

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