





CORPORATE NEWS

Manufacture more sustainably: Companies can now digitally connect machines much faster, even globally

- Made possible by the new "Machine Repository" template library from FORCAM
- Companies create templates for the same machine types and network them in shortest possible time
- Provides companies with a learning system whose knowledge can be shared across factory sites

Ravensburg, Germany – November 2021. FORCAM, the smart factory specialist based in Ravensburg, Germany, offers manufacturing companies a new type of component that allows them to easily digitally connect existing machines in factories - the so-called brownfield - and to network identical machines worldwide in a very short time. The main advantage is that real-time analyses, such as those for monitoring CO2 emissions, can be launched globally much more quickly.

For this purpose, the <u>FORCAM FORCE EDGE</u> connectivity solution, available in the <u>SAP Store</u>, is now equipped with the Machine Repository component: it allows companies to significantly shorten the digital operational capability of machines (time-to-market) during machine connectivity and to save costs.

"Connecting identical machines is reduced to as little as half an hour per machine once teams have been trained," said Dr. Andrea Rösinger, co-CEO as well as Chief Technology Officer of FORCAM. "We thus enable companies to quickly scale machine connectivity worldwide." The advantage for climate protection: "Our solution provides the smart data needed to measure all performance states, including energy consumption or CO2 emissions, faster than ever before."

Oliver Hoffmann, Co-CEO and Chief Sales Officer of FORCAM: "With the new component, our FORCAM FORCE EDGE solution works according to the 'connect and scale' concept. This enables us to fulfill the core requirement of Industry 4.0 to optimize production and planning through smart data from the machine level. This is a significant contribution to the digital transformation: the gap between IT and OT, between information technology and operational technology, is closed."

www.forceedge.io: Freely available standard templates for connecting all common factory machines

Up to now, the digital connection of heterogeneous machine parks has been considered the central challenge for global manufacturing companies. This is because a wide variety of machine types are used in every production facility. The new Machine Repository provides companies with a learning library for the smooth networking of identical machine types. The knowledge from existing connections is available globally to all factory locations via edge/cloud computing.

This is made possible by a novel template approach: templates can be easily created for new or existing machine connections. Via the community portal www.forceedge.io/en, FORCAM provides a freely available collection of templates for configuring the connection of numerous common machine types. These templates can be downloaded and imported into the user's own machine repository.







Investments in existing plants are protected, innovations are made possible

Strategically, companies need to protect their investments in existing machinery and enable the necessary innovations in new digital IT solutions. This is what the FORCAM FORCE EDGE solution offers. "With this solution, almost all machines can be digitally connected, regardless of manufacturer, age or technical status. This protects investments in existing plants," explains FORCAM Product Manager Dominik Amann.

After the connection, the solution's central intelligence gives each signal a meaning in a uniform machine data model. Big Data becomes Smart Data - the central prerequisite for smart manufacturing: The machine data model is available for real-time analyses in downstream systems, for example in ME or MOM systems such as SAP DMC/ME or MII. Dominik Amann: "In this way, even a company's existing machines create added value in the course of a digital transformation."

Connectivity - the ultimate goal of digital transformation in manufacturing

For Industry 4.0 projects, <u>connectivity</u> is the ultimate goal: Only when all signals from heterogeneous machine parks have been digitally recorded in a uniform manner and translated into a uniform language will the further steps of digital transformation succeed, for example the integration of IT systems and apps for real-time performance analyses or predictions with artificial intelligence (AI).

Comprehensive machine connectivity and the transformation of machine signals into smart data thus also form the foundation for one of the important goals of digitization - the integration of manufacturing into global supply and service chains and new business models.

FORCAM FORCE™ solution family: A customized solution for any size of company

FORCAM FORCE EDGE as a member of the FORCAM FORCE™ solution family primarily addresses corporations with global factory networks. FORCAM is a partner of SAP: The solution forms the basis of the machine connectivity of joint customers and enables the transformation of any machine data into the digital supply chain of SAP. Go to SAP Store

The <u>FORCAM FORCE HOT</u> solutions aimed at large and medium-sized companies with the need for a flexible factory IT architecture. The turnkey and flexibly customizable platform solution for hybrid cloud edge infrastructures offers preconfigured MES software (Manufacturing Execution System) as well as open interfaces (Open API) for free composition and collaboration of IT systems. Got to <u>Microsoft AppSource</u>

Small and medium-sized enterprises (SMEs) with the need for quickly implementable digitization of manufacturing are addressed by the <u>FORCAM FORCE SAAS</u> solution. The software-as-a-service solution integrates into existing IT structures; no additional IT resources are required. For a fixed monthly price, SMEs receive all the benefits of a smart factory - hardware, operation, cloud infrastructure, service and support. The solution runs on Microsoft Azure and is ready for use in just a few days.

Go to <u>Microsoft AppSource</u>







Learn more:

- How CO2-neutral manufacturing becomes possible FORCAM (Blog)
- ◆ FORCM FORCE EDGE The connectivity solution for data-driven decision making (Video, 03:38)
- Use Cases Automated Production FORCAM FORCE EDGE & SAP YouTube
 (3 videos in English, between 03:00 and 04:00)
- <u>Sustainability in Production Expert-interview between SAPinsider and FORCAM</u> (Video, 28:27)

About FORCAM - www.forcam.com/en

Manufacturing companies need digital technologies in the era of the Industrial Internet of Things (IIoT) to take advantage of all opportunities for higher efficiency in production and planning. FORCAM offers modular cloud/edge solutions for data-driven manufacturing. The basis is an open IIoT platform technology that is rated as a leader by analysts and has won innovation awards.

The solutions from the FORCAM FORCE™ product family enable

- complete transparency of all processes in production and planning through comprehensive connectivity,
- greater efficiency through the digital twin of production for hybrid cloud/edge infrastructures, and
- free composition and collaboration of IT systems through open interfaces (Open API).

FORCAM technology is in use at both large and medium-sized companies - including BorgWarner, Dynomax Aerospace, Howmet Aerospace, Kostal, Krones, Lockheed Martin, Richards Industrials, Schaeffler. More than 100,000 machines worldwide are monitored with FORCAM technology. FORCAM is headquartered in Ravensburg, Germany, with offices in USA (Cincinnati), England (Rugby) and China (Shanghai).

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