



PRESS RELEASE

New Partner Apps for FIELD system

Latest software solutions for FANUC's industrial IoT platform on show at EMO

Milano – Factory automation specialist FANUC is continuing to populate its industrial IoT platform, FIELD system, for which it is showcasing a number of new apps at EMO Milano (Stand E02 in Hall 7). While FANUC is demonstrating several of its own apps for use on the machine/vendor-agnostic FIELD system, the company is shining the spotlight on various software solutions developed by third-party partners.

“Although FANUC develops highly beneficial apps in-house, we believe that the real power of FIELD system comes from apps developed by third parties,” says Konrad Grohs, FANUC’s Director of IoT Business - Europe. “They are experts in their respective technology areas, delivering feature-rich apps that can help users achieve process improvements and genuine competitive gain.”

FIELD stands for ‘FANUC Intelligent Edge Link and Drive’. Notably, FIELD system can connect various production machines, such as robots or machining centres, of different generations and from all manufacturers. The provision of comprehensive data analysis along the entire process chain provides a decisive step towards smart factory operations.

At EMO, 11 well-known industry Partners show how their solutions can benefit users in many different areas, typically via improvements of productivity, quality and uptime.

Partner solutions for productivity improvement:

- APM by Alascom;
- Fieldview by Cognivix;
- OPERA SMART OEE by Open Data.

APM (Advanced Plant Monitoring) from Alascom enables production monitoring by extracting data from systems such as robots, CNC machines, PLCs and energy meters. The app, which offers live data visualisation for any device connected to FIELD system, helps to identify production issues and prevent downtime.

Fieldview by Cognivix is an object detection and tracking app. Fast and versatile, Fieldview lets users leverage the benefits of computer vision to improve quality through accurate defect detection without the need for AI experts.

Open Data's OPERA SMART OEE is an industrial web-based app for device monitoring (CNC machine tools, robots or other production equipment). Users can see real-time data about machine productivity and efficiency, thus gaining detailed and intuitive insights into the reasons for low OEE (overall equipment efficiency), which in turn help to drive improvements.

Partner solutions for quality improvement:

- Process Stability Calculation by DAIM;
- C-ANALYSE by Marposs;
- Connection for measuring instruments by Mitutoyo;
- Renishaw Central by Renishaw.

DAIM's Process Stability Calculation app supports machine operators to check (in real time) whether the process – anything from machining to welding – is stable. As well as detecting sources of instability, the app's algorithm 'learns' standard behaviour to ultimately reduce the need for supervision by human operators.

C-ANALYSE by Marposs displays and evaluates the recorded monitoring data of cutting processes and machine condition stored in FIELD system's database. Through trend analysis it is possible to reduce scrap rates, extend tool life and improve machine uptime.

Mitutoyo's Connector supports communication between FIELD system and the metrology specialist's handheld devices and CNC measuring machines. As an enabler for automatic quality control and process improvements, this converter software makes it possible to share a wide range of data sets, including measurement results, operational data and machine condition.

The Renishaw Central software converter allows FIELD system users to connect with the company's CMM probes, shop-floor gauging systems and additive manufacturing machines. The associated app provides access to live status and sensor data, as well as live yield rates from measured products to help drive process improvements.

Partner solutions for uptime improvement:

- smart plastics i.Cee by igus;
- ACOUS NAVI by NSK;

- Wireless IO by SMC;
- OMNI edge by THK.

Smart plastics i.Cee by igus provides predictive lifetime information for e-chain systems, chain-flex cables and polymer bearings, all of which are commonplace within manufacturing machinery, systems and equipment. The i.Cee app informs users about the condition of products by advising the number of days until the next suggested maintenance, thus avoiding the cost and time associated with unexpected failures.

NSK's ACOUS NAVI monitors the operating status of machine elements, such as bearings, ball screws and linear guides, by diagnosing the early signs of damage or deterioration. As a result, app users can prevent high repair costs and unexpected downtime.

Wireless IO by SMC facilitates the sending of IO information directly to FIELD system using an OPC-UA converter. Users can process collected data via other apps or dashboards within FIELD system to help drive the preventative maintenance of devices such as pneumatic valves for robotic grippers.

THK's OMNI edge uses vibration analysis and a special algorithm to monitor the lubrication and wear status of up to 90 THK LM (Linear Motion) Guides. Users can therefore save time and money through condition-based monitoring.

FIELD system testimonial

Among the first adopters of FIELD system is Trafime, a producer of components for the automotive sector that generates annual turnover of around €60 million from three plants across Italy.

Says Daniele Diliberto, Production Manager at Trafime: "We chose FANUC's FIELD system for three key reasons. Firstly, for local and remote data management, which provides fast and secure data processing. Secondly for its universality, which is important to a company like Trafime as we use many different machines and suppliers. The third reason is that it enables us to reduce management costs and migrate data securely."

EMO showcase

At EMO Milano 2021, FANUC has a dedicated industrial IoT area on Stand E02 in Hall 7 with a special focus on uptime applications. Other apps relating to quality and productivity are present elsewhere on the stand, close to the associated machines.

About FANUC

The FANUC Corporation is one of the worldwide leaders in factory automation for CNC control systems, robots and production machinery (ROBODRILL, ROBOCUT, ROBOSHOT and ROBONANO). Since 1956, FANUC is the pioneer in the development of numerically controlled machines in the automation industry. With 264 FANUC locations worldwide and more than 8,000 employees, FANUC offers a dense network in sales, technical support, research & development, logistics and customer service.

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