PRESS RELEASE

in.hub introduces siineos® plc: Control and condition monitoring in one system

The soft PLC runs on the siineos® edge operating system.
The control program and operator interface are developed in the browser as part of the same project.

Chemnitz/Nuremberg, 24 November 2026 – At SPS 2026, in.hub introduced siineos® plc, a soft PLC for the siineos® edge operating system. On the industrial gateway, the controller uses the same machine data as the condition monitoring system and can respond directly to detected anomalies. Anyone interested can try siineos® plc free of charge in Early Access from 14 December 2026 to 31 March 2027.

Separate systems in day-to-day operations

In many industrial plants, machine control and condition monitoring still operate largely independently of one another. The PLC controls the sequence of machine operations, while a separate system collects sensor data, records how readings change over time or flags anomalies. When the monitoring system detects a problem, it often falls to a person to decide what action to take. Programming, visualisation and analysis of the collected data also often rely on different tools and systems.

Monitor and respond directly

siineos® captures sensor and machine signals and stores their history in its integrated time series database. The data is available for condition, energy and vibration monitoring. siineos® plc uses the same data for control tasks on the same device. The controller can reduce rotational speed if vibration levels rise, scale back a load if a demand spike is imminent or respond to unusual compressed air consumption. Controller states and values can be recorded and visualised alongside the other machine data.

The machine's dedicated safety systems remain responsible for safety-related functions. siineos® plc is not a safety PLC.

Programming and operation in the browser

Four IEC 61131-3 languages are available for control logic: Structured Text (ST), Ladder Diagram (KOP/LD), Function Block Diagram (FUP/FBD) and Sequential Function Chart (AS/SFC). Programs, functions and function blocks can be combined within one project. For example, enabling logic can be written in Ladder Diagram and a machine sequence implemented as a Sequential Function Chart. The application is compiled for and runs on the gateway. Live values and diagnostic views support commissioning and troubleshooting.

In the integrated HMI editor, users can link displays, inputs, images and charts to controller variables. They can open the finished operator interface in the browser separately from the development view. Sign-in and user roles determine who can view content or operate functions. The integrated programming environment requires no separate installation or additional licence.

Open to existing automation environments

siineos® plc exchanges data via MQTT and Beckhoff ADS and can act as an OPC UA client. It can be integrated into existing machines and plants and connected to existing controllers or higher-level systems. Customers can connect their own AI systems to the control environment via the integrated MCP interface.

Creating control programs with siineos® ai

Also introduced at SPS, the siineos® ai assistant helps users program siineos® plc through a chat. Users describe the task the controller should perform. The assistant generates the control logic, sequences and corresponding operator interface. The code is provided in the supported IEC languages and the operator interface is available in the HMI editor. Users can review, adjust and approve both.

For machine builders, operators and integrators

Machine builders can implement control, an operator interface and condition monitoring on a single device. This also provides a foundation for additional digital services such as remote maintenance or predictive maintenance. Operators and integrators can add control and monitoring functions to existing plants. siineos® plc can handle tasks based on the collected machine data alongside an existing main controller.

One tool for previously separate tasks

“I’ve been programming controllers for 30 years. For many installations, I’ve needed several tools: programming software on my laptop, an operator interface and a separate system for data analysis. siineos® plc brings these together on one device in a browser-based environment. The controller uses the same data that’s available for monitoring,” says Ronny Wachtel, Service & Support Specialist at in.hub.

“siineos® collects and monitors machine data directly on the device. With siineos® plc, the same device can now respond to that information too. For machine builders, this means control, operation and condition monitoring can work much more closely together on a shared platform,” says Christian Groß, co-founder and Managing Director, Marketing & Sales at in.hub.

Live at SPS

At SPS, in.hub is showing siineos® plc on the HUB-GM400 industrial gateway. A demo system with a conveyor belt, a gripper and tank controls shows how the controller responds to condition monitoring data. The operator interface displays live and recorded process values.

in.hub at SPS 2026
24–26 November 2026 · Nuremberg · Hall 4A · Stand 301

About in.hub

Based in Chemnitz, in.hub GmbH develops retrofit hardware and software solutions that make it easy to digitise machines and processes. in.hub stands for “keep it simple. make it happen. plug & play.” Its modular hardware and the local siineos® operating system allow users to collect and analyse machine and process data and put it to use in applications such as condition monitoring, energy monitoring, remote access and other digital services. Day-to-day operation requires no additional server or cloud infrastructure. For more information, visit www.inhub.de

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