Press Release

Lenze demonstrates at SPS how AI saves machine builders and operators time during commissioning, diagnostics and engineering

Nuremberg/Aerzen, November 24, 2026.

In mechanical engineering, what matters is what artificial intelligence (AI) can deliver at the machine. From November 24 to 26 at SPS 2026 in Nuremberg, Lenze will demonstrate how machine builders and operators can use AI to save time. At the Innovation Beacon in Hall 7, Booth 391, visitors can experience "Physical AI in Motion": With the Commissioning Agent, Auto-Tuning and LED Analyzer, the drive and automation specialist brings AI directly to the machine. In addition, AI-supported, end-to-end engineering ensures that up-to-date product data is automatically available in machine builders' engineering tools.

When expert knowledge is not readily available during commissioning or valuable time is lost searching for the cause of a fault, AI can provide targeted support. Lenze combines its domain expertise with data from the machine and engineering environment to provide users with the knowledge they need for the task at hand.

Expert knowledge guides users through commissioning

The **Commissioning Agent** shows what this can look like in practice. It makes Lenze application expertise available directly at the machine and guides users step by step through commissioning. The agent recommends the necessary steps and explains them. If a fault occurs, it reads the error directly from the drive and suggests appropriate solutions. This enables users to carry out commissioning and fault diagnostics systematically, with direct access to the expert knowledge they need.

The right controller settings in just minutes

AI-supported Auto-Tuning makes complex control engineering expertise accessible even to users without in-depth knowledge of control technology. At the end of commissioning, the **Commissioning Agent** starts FAST Auto Tuning, which optimizes the controller settings in around 30 seconds. This reduces the time required for a task that can take several hours, depending on the application, to just half a minute. At the same time, users obtain reproducible results without having to delve deeply into control engineering.

Find the cause of faults faster with a smartphone

The **LED Analyzer** uses AI in the background for initial fault diagnostics. If a drive reports a fault, a smartphone is all that is needed for an initial diagnosis. The application recognizes the drive's LED flashing pattern, identifies the corresponding error code and displays possible causes and solutions directly on the smartphone. This allows users to start troubleshooting immediately instead of searching through documentation for the error code. Visitors can try out the principle themselves at the **Innovation Beacon**: an i950 servo inverter generates a fault message, the smartphone recognizes the LED pattern and displays possible causes and solutions.

Use up-to-date product data directly in engineering

Engineering also becomes more efficient when current product information is available directly in the right tool. Today, product data is often distributed across different sources and tools. When a product changes, engineers frequently have to search for the latest information and transfer it manually.

With **end-to-end, manufacturer-independent engineering**, the machine builder's engineering tools automatically receive up-to-date product information. This is based on a digital product twin using the Asset Administration Shell (AAS). The Lenze AAS server provides product data, E-CAD and M-CAD information, digital nameplate data and Product Change Notifications (PCNs) in a standardized format.

This information flows directly into the machine builder's engineering tools. **EPLAN** receives up-to-date component data, product changes, documentation, EPLAN macros, CAD drawings

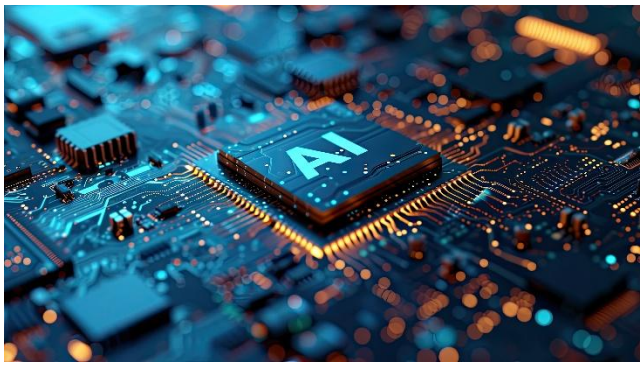
and certificates directly within the engineering process. During operation, Hilscher netFIELD extends this consistent data foundation with device overviews as well as security and firmware management for components from different manufacturers. Engineering and operations can therefore work with the same up-to-date data and no longer have to search for product information repeatedly at every stage of the machine lifecycle.

Users describe what the axis should do. AI takes care of the rest?

With **Vibe Commissioning**, Lenze transfers the idea of **Vibe Coding** to commissioning. Users describe the desired motion, and AI derives the necessary steps for the axis. At SPS, Lenze will showcase an initial prototype combining AI with domain expertise and standardized data models.

The goal is to guide users more easily through complex commissioning tasks in the future. At the **Innovation Beacon**, machine builders can experience the prototype and contribute their own perspectives and ideas to its further development.

AI thus adds digital support throughout the machine lifecycle to the **Best Axis**. What matters is not only the technical performance of a motion solution, but also how easily users can dimension, commission, optimize and operate it over the long term. In this way, AI helps machine builders and operators save time in their day-to-day work, manage complexity and reach solutions faster.



Caption:

Artificial intelligence as a building block of the Best Axis**:** Lenze connects digital expert knowledge with the physical machine and presents four approaches that demonstrate how AI can support users from engineering and commissioning through to diagnostics and maintenance. / Source: Adobe Stock.

About Lenze

For almost 80 years, Lenze stands for drive technology, automation and intelligent motion solutions. The family-owned company, headquartered in Aerzen, employs around 3,200 people worldwide and generated revenue of EUR 680 million in the 2024/25 financial year.

As a specialist in motion technology, Lenze's Best Axis approach brings together mechatronics, electronics, software, AI and services to provide machine builders with the ideal combination for every application. This helps customers in around 100 countries make their machines more powerful, easier to operate and more economical.

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