

## Press release

Hameln/Hanover, 1 April 2019

### The easier way to Industry 4.0

Greater functionality, less complexity – Lenze makes digital transformation controllable

**At this years Hanover Fair, at Stand H22 in Hall 14, Lenze is presenting its new controller generation, a flexibly configurable production line and - using a highly dynamic double-delta robot as an example - shows how development projects can be realised in record time by means of simulation. Lenze proves that digital transformation is not necessarily making mechanical engineering more complicated. With the right tools and suitable concepts, even intuitive automation is possible.**

More functions, more flexibility, more intelligence: complexity and the requirements placed in automation are increasing. To make complexity manageable, the machine automation specialist offers a consistent, open automation platform consisting of hardware, software and "brainware". The centrepiece of the Lenze automation platform is a scalable control system portfolio, including cabinet controllers and panel PCs for the realization of small machines up to highly complex machinery and systems.

In Hanover, Lenze presents the next generation of its cabinet controllers, the c500 series. It uses the most powerful CPU (Central Processing Unit) currently available for highly compact designs. This makes the c500 series ideal for tasks that place maximum demands on computing power. One example is the evolution of printing presses: they place extremely high demands on timing when it comes to synchronizing numerous axles, and they also require maximum precision. This is no problem for the new generation of controllers – it always delivers sufficient performance, even for existing applications which continue to grow as part of Industry 4.0 and require extra computing power.

Lenze is also presenting a further model of the new controller generation, which divides up the ample computing power available in a special way: in addition to the control component, an installation of the Windows 10 IoT operating system runs in an encapsulated environment. With the aid of the so-called OpenSystem architecture, this controller can execute customer-specific Windows applications, such as the analysis of vision systems, the detection of 2D and 3D code and the running of AI applications. Likewise, data can be processed and compressed for the cloud or managed in a local database, so that it can for instance be used for predictive maintenance.

### **Digital engineering in practice**

Lenze shows what it means to develop machinery in times of Industry 4.0 with the aid of a Pick&Place exhibit, a sorting cell with a highly dynamic double-delta robot. The two delta robots work hand in glove to transport workpieces onto a conveyor belt. The development was at first carried out purely digitally – based only on the computer data right up to the programming of the robots. With the aid of simulations, it was possible to eliminate errors in the control logic even before the first screw had been set. The time it took to complete and commission the cell was thus extremely shortened. And it also preserved the materials – if the first, defective test runs had not taken place during simulation but on the real object, the robots could have been damaged. During operation, too, the benefits of digitalization make themselves felt: it allows the visualisation of the ongoing production process thanks to the machine data, so that the position of the workpieces can be tracked live at any time with no additional sensors.

### **On the way to Plug & Produce**

The idea of a flexibly configurable production system in which modules can easily be exchanged and put into operation with no need for time-consuming reprogramming takes things to another level. Lenze calls the concept Plug & Produce – simply plug in and get started. Open, cross-vendor standards allow the various modules involved to share data automatically, even with complete interaction during the production job. So the production line only needs to be configured, not reprogrammed. This standardized communication is built upon the OPC UA and its PackML companion specification. This was expanded by a description of the machine capabilities (“skills”). At the trade fair stand, Lenze

is using a modular production line to demonstrate how this concept will be implemented in future – and how OEMs can already lay the foundations for this today.

### **Conclusion**

The digitalization of automation is about to enter a new phase: not only more and more devices, more options, more complexity – but also greater integration and automation in the development stage, which will result in easier handling. The benefits that Industry 4.0 offer users were sometimes expensive acquisitions within mechanical engineering. Lenze has taken up the cause of reversing this development. With its current systems and products, sophisticated tools and revolutionary concepts, the specialist for machine automation proves that digitalization – when put to the right use – is of particular benefit to OEMs.

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## About Lenze

Lenze is a leading automation company for the machine-building industry and a specialist in Motion Centric Automation. As a systems supplier with solutions competence, Lenze works for and with its customers to create high-quality mechatronic products and packages, powerful systems consisting of hardware and software for machine automation, as well as digitalisation services in areas such as big data management, cloud or mobile solutions, and software for the Internet of Things (IoT).

Lenze employs around 3,700 employees worldwide and is represented in more than 60 countries. Lenze's growth strategy will see the company continuing to invest strongly in the areas relating to Industry 4.0 in the coming years – with the aim of increasing sales revenue and profitability.

**[www.Lenze.com](http://www.Lenze.com)**

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