

**Project Note**

# Production control system easily developed with LabVIEW

This project involved replacing a production system. Zühlke helped the project team to obtain the necessary LabVIEW expertise, and designed and implemented the required software together with the customer.

**Task**

The customer in the project was Inficon AG, a manufacturer of high precision measuring devices with extensive experience in the production of heating spirals for vacuum sensors. The new production system created products of higher quality and was more ergonomic. Zühlke was brought into the project as a LabVIEW specialist.

**Implementation**

The Production Engineering department at Inficon drew up the production plan and took responsibility for system construction and for the maintenance of the installations. The employees of this department had expert knowledge of the production processes involved. However, they had never before used their LabVIEW expertise to develop an entire control system for production installations. Zühlke was familiar with LabVIEW. The control system requirements were implemented in a close collaborative effort. A new type of system control emerged according to the project motto "Configuration, Not Coding". This approach allowed Inficon to use parameters to optimise the production process for various types of heating spirals without any change to the existing control software. The parameter and production data was available at any time in the database for quality assurance. After the system was successfully commissioned, Inficon received the source code and the software documentation. In a LabVIEW training course, all of the employees involved learned about the techniques used in this flexible software architecture. Zühlke developed LabVIEW programs using its own style guide, which reflected the experience it had gained in other projects. The consistent program structure rendered the code more readable. That meant employees could make quick adaptations later on.



**Technical Data**

LabVIEW  
MS Access

**Customer benefits**

- The customer benefited from the expertise its team gained and was put in a position to adapt production on its own later on, if required.
- Zühlke passed on its software design expertise to the customer when it handed over the completed project.
- The involvement of Zühlke experts certified in LabVIEW reduced software development costs and assured the quality of the development work.

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