

**Project Note**

# What capabilities should a new machine software have?

In this project, a mechanical engineering firm wanted to optimise the operation and configuration of new control software. Zühlke assisted the customer's team in systematically determining the stakeholders' requirements.

**Task**

Netstal was developing a totally redesigned control software for its injection moulding system. This project revolved around optimum machine operation and flexible configuration by users. To achieve these goals and speed up the development process, Zühlke advised and assisted the customer in determining and analysing the requirements.

**Implementation**

The first step was to review requirements that had already been determined. Together with the project manager, the Zühlke specialist in requirements engineering defined the work areas for which requirements had to be determined most urgently. He produced templates for the documents to be created and named the relevant stakeholders. The requirements for the various areas were then derived from the available documents and interviews with stakeholders. Central concepts (e.g. machine protection) were scrutinised and revised where necessary. Zühlke documented, consolidated and analysed the requirements. After a review by the stakeholders, the customer passed the results on to internal and external software developers, who then incorporated these findings in their own work. Beyond this specific project, the successful approach was also established in requirements engineering at Netstal as a process with corresponding templates and descriptions.



**Technical Data**

- Use Case diagrams
- Use-Cases
- Conceptual model
- Data flow diagram
- Activity diagrams
- State machines

**Customer benefits**

- Complete and consistent requirements for the further development of the machine software were able to be drawn up thanks to the Zühlke specialist's external perspective and systematic method of procedure.
- The approach was so successful that the customer's team also used it for further projects and incorporated it in the process documents. The templates are useful in documenting functional and non-functional requirements.

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