

Project Note

Professional coaching to gain an edge in software technology

Hunkeler AG was developing a new control platform for controlling paper processing machinery in digital printing. Zühlke coached the team on the change to model-based software development with the result of lower costs.

Task

Hunkeler AG manufactures systems for paper processing in digital printing. It wanted to replace its current control system with a modern one. The associated machine control software was developed methodically using state-of-the-art technologies. Zühlke coached Hunkeler on the rollout and successful use of the new software development tools.

Implementation

To establish the new work methods quickly and ensure efficient use of the tools, Zühlke supported the Hunkeler project team in the form of solid expertise in project management and in software engineering, in software modelling and in architecture.

This involvement began with the setup of an extensive development environment and an appropriate project organisation. Parallel to the subsequent coaching of the Hunkeler engineers on the object of development, the Zühlke consultants also implemented a large part of the new control system themselves. This approach ensured optimum use of the technology potential and a high degree of efficiency on the part of the team.

A full and practical model of the new software was created using the UML tool Rhapsody and the code was directly generated from it. This self-contained method ensures that the software running on the hardware corresponds at all times with the UML model. The software tests were able to be conducted automatically at the office work station thanks to a thorough hardware-independent simulation of the machine.



Technical Data

RUP

Microsoft Windows CE

UML with Rhapsody
Microsoft Visual Studio
Qt
Ethernet PowerLink
boost

C++, Python, C#

Arm9

Customer benefits

- Reduction of service costs: Zühlke suggested to use a web server, which simplified service. Zühlke engineers excel in implementation and this trait helped to ensure a high level of system quality from the outset.
- Team enabling for further development projects: The project profited from Zühlke's experience in methodical, model-based software development. The jump forward in technology succeeded and the customer was in a position to use the knowledge for further projects.

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