

Project Note

Improving fault management with usability engineering

SBB, the Swiss Railway Company, wants to minimise the effects of disruptions in rail traffic. The integration of usability methods into requirements engineering helps the IT project team to achieve this goal.

Task

“There is a fault in the overhead cables at Winterthur. The S7 service will be delayed by 5 minutes.” Before this announcement reaches travellers, several hundred people at SBB (Swiss Federal Railways) and its partners have already been communicating intensively. The new ALEA software now makes this communication quicker and more efficient. The relevant parties therefore receive information and decisions accurately and quickly. The project team needs to address the following:

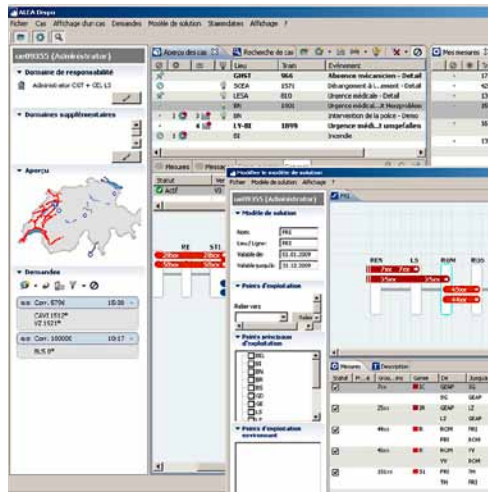
- The use of the application must be very efficient – time is of the essence when disruptions occur.
- The provision of incorrect or incomplete information can result in significant costs arising.
- Team members require solid domain knowledge and many years of experience.

Implementation

Zühlke has considerable expertise in usability and requirements engineering, and combines these skills in order to ensure success. Users are integrated into the project team and make optimal use of their contacts with their areas of expertise. Usability methods supplement requirements engineering:

- Video recordings help to understand the nature and dynamics of disruptions.
- Storyboards graphically display the ALEA vision.
- The requirements are tested and assessed by means of mock-ups and interactive prototypes.

The needs and requirements thus identified serve as a product backlog for agile development, with the team refining and implementing them in an iterative manner. Mobile usability labs are used to test the respective parts of the application for viability and compliance, and any potential improvements are immediately fed back into the development process. The resulting solution meets all the demands of this challenging application.



Technical Data

- Requirements Engineering
- Usability Engineering
- Scrum
- Mobiles Usability Lab
- Storyboards
- Java
- Eclipse RCP
- GUI Prototypes

Customer benefits

- The team utilises usability and requirements engineering methods to identify the core requirements and to meet these optimally.
- The experience of the Zühlke usability experts helps to reduce and simplify the user interface to the elements that are absolutely necessary.
- With the combination of usability methods and requirements engineering, the project team can master a wide range of difficult application situations at any time.

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