

Project Note

On-board computer for EasyRide

A new electronic ticketing system for public transport: the on-board computer is built into each vehicle and controls all passenger travel-data. The deadline for completing the prototype was met thanks to Zühlke-experts.

Task

The Swiss Transport Authority (SVB) has been developing an electronic ticket system, which allows the passenger to use the public transport system and pay monthly for this service according to his actual use. The passenger needs to carry a credit-card-sized ticket on him/her, which registers him/her upon entering the vehicle. The new aspect of the system is that passenger movements can now be recorded without contact. The management of passenger data and the forwarding of this data to the central accounting application shall be handled by an on-board computer developed as an embedded system, which can be easily built into every vehicle.

Implementation

The customer's development team developed the on-board computer under Windows NT. Our team gradually integrated and tested it on the Windows CE on-board computer. A simulation software was also developed to test the interplay of the components. Moreover, a Java component was integrated which communicated with the main part of the application written in C++.



SIEMENS



Technical Data

Hardware:
Power PC, 16 MB RAM
Target platform:
Windows CE
Development platform:
Windows NT
Development languages:
C++ and Java
Development environment:
MS Visual Studio and
Embedded Studio
OOA/OOD:
UML with Rational Rose

Customer benefits

- Know-how transfer:
The customer profited from our extensive experience in software development for embedded systems under Windows CE and with Java.
- Compliance with deadlines:
The deadline for completing the prototype was met thanks to the flexible use of experts from Zühlke.

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