

**Project Note**

# Software for revolutionary hearing aid accessories

An international hearing aid company was launching a modern transmitter on the market for instruction in classes with hearing-disabled pupils. Zühlke was involved in developing these state-of-the-art devices.

**Task**

Phonak produces hearing aids and accessories. The customer was launching a new device on the market to replace the previous product generation. Parallel to this activity, the company wanted tools and processes for software engineering to be upgraded in order to enable the development of such a complex application in the first place.

The intuitive controls resemble those on mobile phones and offer new functions once distributed among several different devices. The new devices feature enhanced voice quality and are more flexible for users to operate, because they allow several people to communicate at the same time with the receivers. Zühlke provided solid software engineering expertise, particularly for modelling, testing and configuration management.

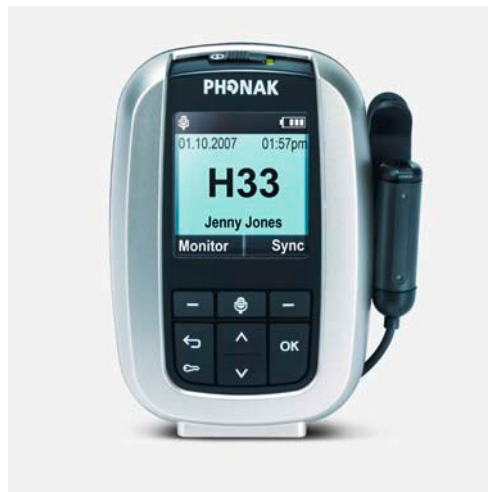
The software was implemented together with the customer's development team and delivered on time in a readily testable quality.

Zühlke also assisted and consulted the customer in handling issues like software architecture, planning, cost estimation and project management.

**Implementation**

The customer used in this project for the first time an RT-OS. It ensured a clear separation between driver software and application software. Rhapsody, the UML modelling tool, played a central part in this software project.

In order to meet the high quality standards, developers paid close attention to ensuring a high degree of test coverage. A largely automated tool chain, a project specific test infrastructure and extensive documentation ensured that the customer retained the associated expertise – even after Zühlke completed its project work.



**Technical Data**

ARM9

Sciopta RTOS

UML mit Rhapsody, Microsoft Visual Studio

Assembler, C, C++, Python

BuildBot

**Customer benefits**

- Zühlke employees' solid, practical expertise allowed the customer to introduce the latest software engineering methods quickly.
- Drawing on its experience from a large number of projects, Zühlke helped to complete the high quality product on schedule.
- The customer is now applying the expertise it gained in the project to other development tasks.

Zühlke Engineering AG  
Wiesenstrasse 10a  
8952 Schlieren (Zurich)  
Switzerland

Phone +41 44 733 6611  
Fax +41 44 733 6612  
info@zuehlke.com  
www.zuehlke.com