

# ENSURING SAFETY AND QUALITY: ADVANCED SOFTWARE DEVELOPMENT FOR AUTOMOTIVE SYSTEMS

## Project Description

Our client, a major automotive supplier in the industry, specialises in the development of complex systems tailored for advanced automotive technologies. Our primary tasks included detailed software development and extensive software testing of the power management feature, in strict compliance with Automotive SPICE and functional safety standards, on a prominent automotive microcontroller family platform. A key aspect of our role was to provide extensive assistance to our client in refining, customising or modifying their product offering to meet the unique specifications of individual Original Equipment Manufacturers (OEMs).

## Solutions

As HANECS GmbH, our strong expertise in automotive software development and software testing gave us confidence in our ability to tackle any challenge. Consequently, the feature underwent comprehensive testing using a robust test framework that included the simulation of external ECU signals. The resulting deliverable featured a versatile software approach that could be customised to meet the unique requirements of Original Equipment Manufacturers (OEMs). Our team took responsibility for all levels of the Embedded Software Engineering Process Group (SWE) within the V-model framework.



### Industry

Automotive



### Customer

Global leading company of lighting and electronic solutions for the automotive industry



### Keywords

Embedded Software Development, Software Testing, C Programming, Automotive, V-model

## Tools

- ✓ Aurix MCU
- ✓ iSYSTEM Debugger
- ✓ winIDEA SDK as Testing Framework
- ✓ Tessy
- ✓ DaVinci Configurator
- ✓ IBM Doors
- ✓ IBM Rhapsody
- ✓ PTC Integrity
- ✓ C Programming
- ✓ Polyspace
- ✓ QA-C