

# Protocol Stacks

High-performance and tailored exactly to your needs





# Protocol Stacks

**DoIP, UDS and more protocol stacks available in our portfolio**

## Key Features



**Very performant and stable programming**



**Modular design**



**Individual adjustments easy to implement**



**Unified Diagnostic Service (UDS) Stack acc. to ISO 14229**



**DoIP Transport Protokoll Stack acc. to ISO 13400**



**Transport protocol for UDS and KWP2000 acc. to ISO 15765**



**Diagnostic event manager for UDS and J1939**



**Flashbootloader (developed acc. to ISO 25119 SRL-2)**



**CAN basic driver for your platform**

## Performant protocol stacks – standard based and proprietary

A performant programming and clearly defined interfaces are essentially important for the creation of protocol stacks. Based on standards and proprietary customer-specific requirements that set the rules of communication, the Sontheim Industrie Elektronik GmbH has already developed several stacks for various application areas.

## Great expertise with different communication protocols

For implementing your customized solution we can fall back on the already-implemented stacks such as Device-Net, J1939-21 including address claiming, J1939-73 (DM1 and DM2), KWP 2000, UDS, CANopen slave and master, to support you optimally. Due to our extensive experience in the development of protocol stacks and our modular software architecture, we can implement at any time individual and proprietary protocol stacks and integrate it into our software products.

## Many years of experience with various microcontroller platforms

Our protocol stacks were often ported by us on various hardware platforms and microcontrollers, such as PowerPC, ColdFire MCF548x, Infineon XC164CS, Atmel AT89C51CC03C ARM7 LPC2458, Star12, HC12.

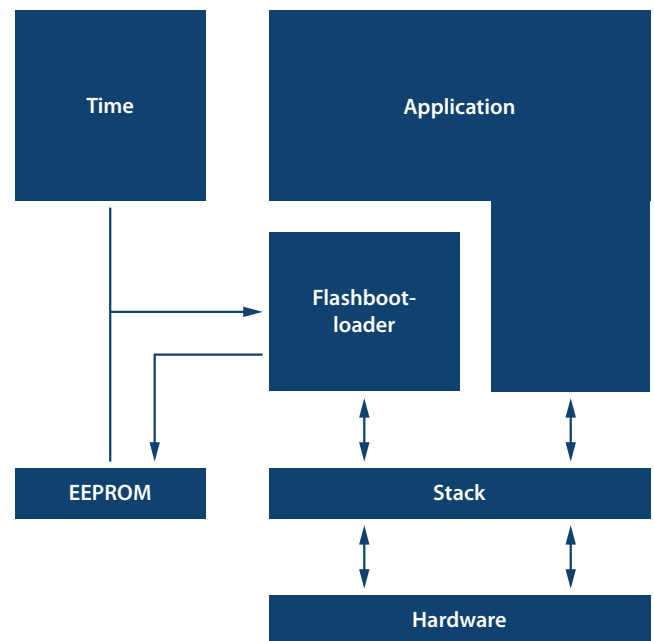
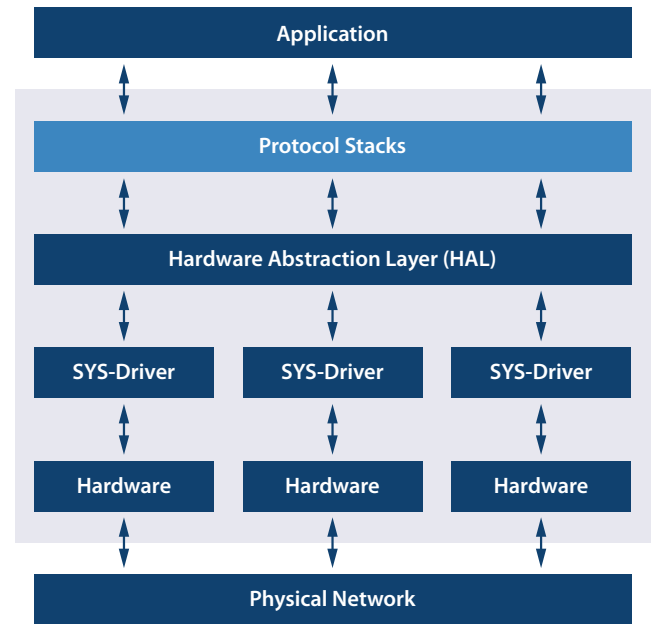
## Real time for critical applications

In the field of automation technology we employ our CAN stacks in real-time environments and so we can offer as a example control PCs, which are suitable for critical applications, such as complex systems.

## From the application to the hardware

Of course, it is also possible to implement proprietary protocols. We have already several basics by different customer-specific projects, which have been successfully implemented. PC side as well as in the embedded sector, we have specific know-how. In addition, a quick integration is facilitated by the modular design in your system and we like to develop a custom solution for you. With the Sontheim Flash boot loader we offer a tailor-made solution for your system. Our fast and efficient solutions are already in many systems in use and allow a reliable boot up process, as well as software programming. In addition to the stacks, the HAL and the drivers for hardware, you receive also hardware components such as CAN interfaces and industrial PCs and control units.

## Schematic structure of the stack and the flash bootloader



**For specific voting requirements and a customized solution, we provide you with a team of project managers and software specialists. If you are interested we are looking forward to your request!**



**Mobile Automation**



**Industrial Automation**



**Diagnostics**



**Connectivity**

**We are looking forward to your enquiry!**

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