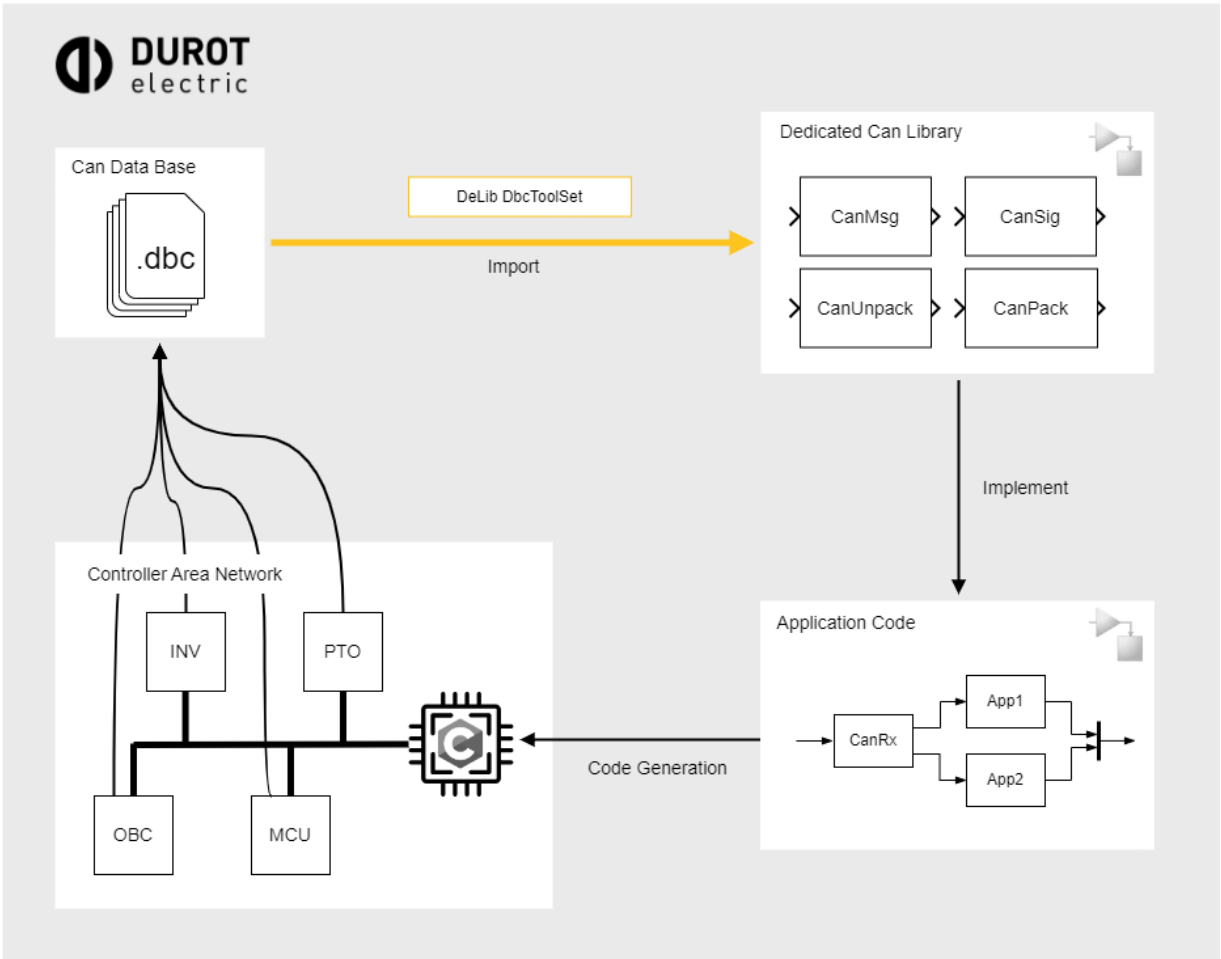
DeLib – DbcToolSet

Our cutting-edge software solution *DbcToolSet*, streamlines the integration of DBC files into Simulink environments, ensuring a seamless and efficient workflow for embedded systems development. The same library is also available as C-API. *DbcToolSet* automates time consuming manual tasks and ensures that the code meets quality standards.

Features & Benefits

- Target: Embedded On- and Offhighway ECU's
- Target independent Solution
- Automatic Code Generation from DBC files
- Automated Interface generation (.sldd)
- MISRA C / ANSI C compliant
- Automated Error Detection: Message Timeout, CRC, AliveCounter, Signal Range Check
- Ease of use through Simulink masks and parameters
- Automated DBC Cleanup, for those DBC Files that lack basic structure and consinstency



During Programming and Compile time

- Analyzes DBC for incrorrect attributes & collisions
- Creates library according to layer architecture (based on Autosar)
- User configures outside of DBC (in Simulink)
    - HW-target, HW-channel, Signal CRC, default value
- DbcToolSet creates and configures Simulink Blocks
    - Can Read/Write (according to TargetLib)
    - Can Unpack/Pack
    - Can MsgCheck and SignalCheck
    - Can Get/Set DTC/J1939State
    - Can ApplicationInterface
- DbcToolSet creates Simulink data dictionary with signal types, enums and additional data

During Execution Time

- *Read/Write* interface to hardware layer, according to Dbc and config
- *Unpack/Pack* data for each channel, node, MsgID, cycletime, according to Dbc and config
- *MsgCheck* for DLC, Timeout, CRC, counter, according to according to Dbc and configuration
- *SignalCheck* for value range, default values, enums
- *SetDTC /J1939State* translates the above information into standardized protocols
- *Application Interface* provides all information to the application within a struct