Real-Time Drivers (RTD) are a new and innovative drivers set supporting real-time software on AUTOSAR® and non-AUTOSAR applications targeting Arm® Cortex®-M cores and ISO 26262 compliance for all software layers, providing full IP and features:

- AUTOSAR by creating a rich ecosystem, considering Complex Device Drivers (CDD) and a wide range of standard drivers
- Non-AUTOSAR applications for low-level drivers for highly-optimized code

RTD also offers possible integration on the platform level of middleware (FATFS for EEP, FEE for FLS derived from MCAL) and stacks (LIN, NFC, TCIP). AUTOSAR functionalities (multicore, user mode) are also expanded to a non-AUTOSAR environment, previously only available for AUTOSAR.
Real-Time Drivers (RTD) Block Diagram

- Driver Examples
- Libraries
- RTOS Integration
- Application Demos
- High-Level Interface
  - Microcontroller Drivers
  - Memory Drivers
  - Communication Drivers
  - I/O Drivers
  - Complex Drivers
- Low-Level Interface
  - Analog Interface
  - Comms
  - Timers
  - Safety and Security
  - SoC and Boards
  - External
- Header Files
- OSIF Operating System Interface
- NXP (S32) Hardware
- UI Config
- Frameworks
- Tresos
- S32CT
- Start-Up
- Compiler
- Linker Files

Automotive General Block Diagram

- SERVICES / APPLICATION SOFTWARE
- MIDDLEWARE
- OS / DRIVERS / SAFETY
- HYPervisor (if available)
- ARM CORTEX CORE(S)
- FIRMWARE / HW ACCELERATORS

NXP TOOLS & IDE
View additional information for Real-Time Drivers (RTD).

Note: The information on this document is subject to change without notice.