



# Model-Based Design Toolbox (MBDT)

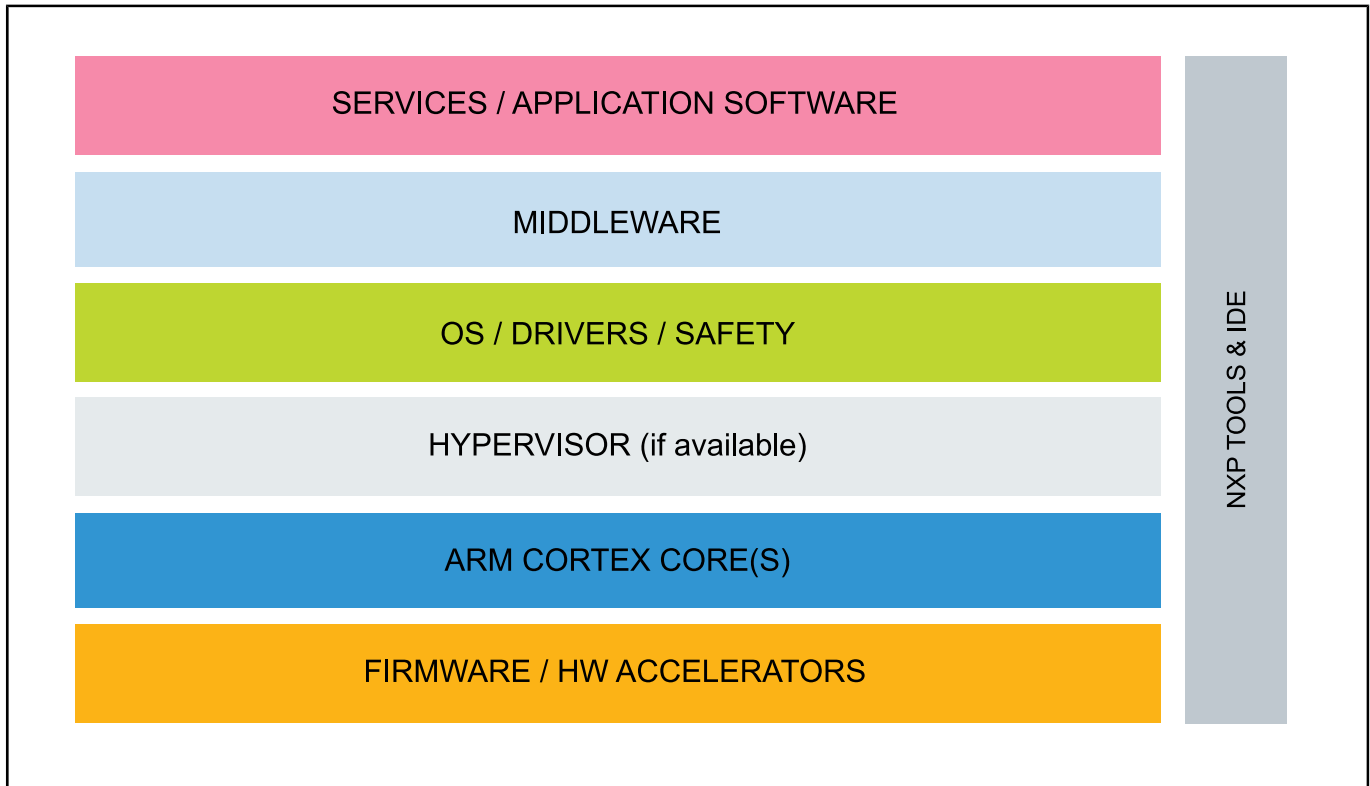
## MBDT

Last Updated: Apr 16, 2024

The NXP MBDT includes an integrated Simulink®-embedded target supporting NXP MCUs for direct rapid prototyping and built-in support for software- and processor-in-the-loop (SIL and PIL) development workflows, systems and peripherals device interface blocks and drivers, a target-optimized Math and Motor Control library set (AMMCLib) for efficient execution on the target automotive MCUs and Real-Time Control Embedded Software Motor Control and Power Conversion Libraries (RTCESL) for other MCUs, and bit-accurate simulation results in the Simulink® simulation environment.

The NXP MBDT helps to generate all the code required automatically (including initialization routines and device drivers) to start up the MCU and run complex applications such as motor control algorithms and sensor-based and communication protocols while supporting builds with multiple compilers. The NXP MBDT supports a wide range of applications development and helps enable control engineers and embedded developers to shorten project life cycles.

## Automotive General Block Diagram Block Diagram



View additional information for [Model-Based Design Toolbox \(MBDT\)](#).

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

**[www.nxp.com](http://www.nxp.com)**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.