

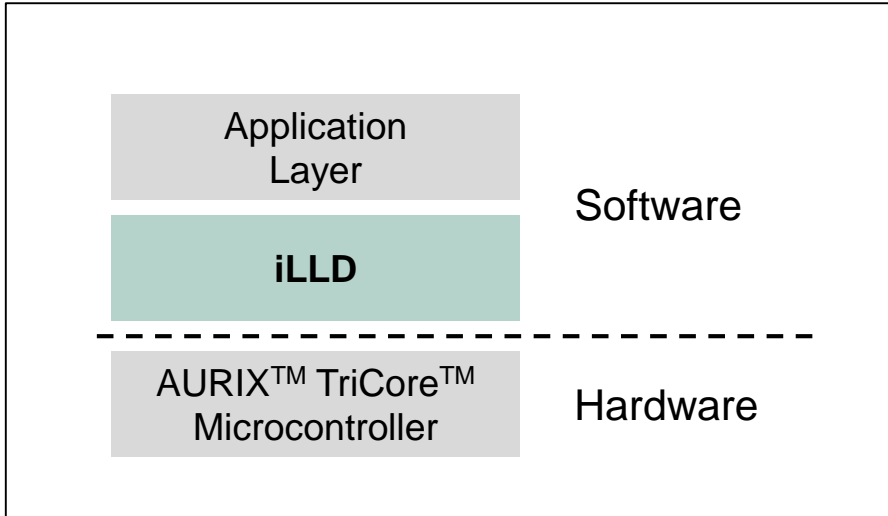
iLLD

Infineon Low Level Driver

AURIX™ TC3xx Microcontroller Training
V1.0 2020-06



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Highlights

- › The iLLD is a single open source software package offering driver functions for the AURIX™ family
- › Easy integration into development environment
- › Support for various compilers

Key Features

Demos included

Hardware abstraction

Customer Benefits

- › Reference code for various application scenarios
- › Enables easy microcontroller peripheral configuration, initialization and usage

iLLD

Demos included

- › Several code examples are included for reference:



MulticanBasicDemo



EthernetDemo



FlashDemo



I2cBasicDemo



DmaBasicDemo

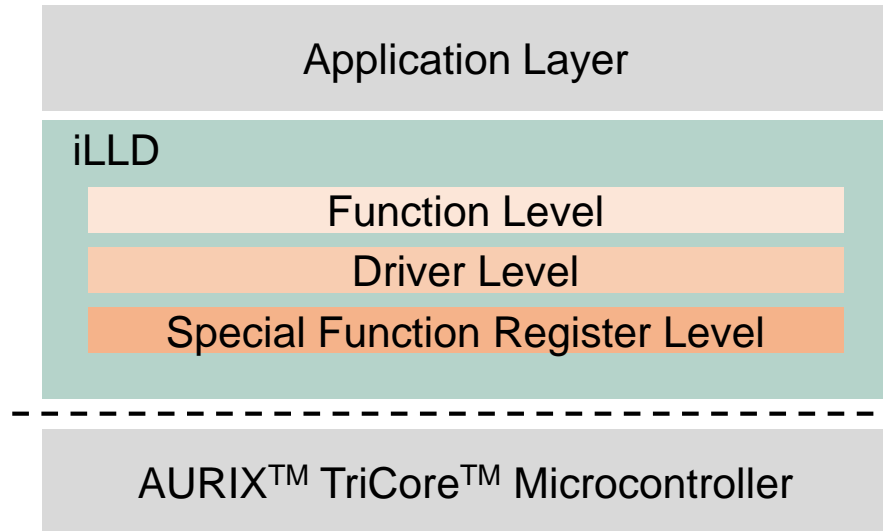
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- › These enable
 - getting started quickly
 - creating a first successful running application quickly
 - easily following recommended initialization flows

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Hardware abstraction

- › The iLLD provides functions, drivers and structures that allow three levels of abstraction

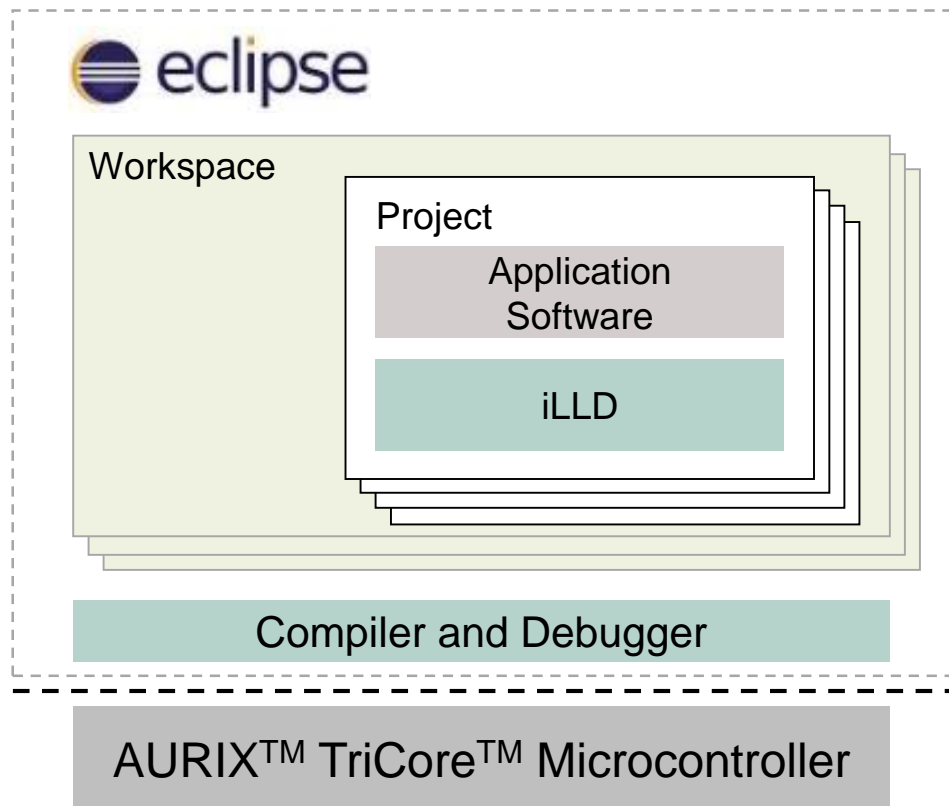


- › **Special Function Register Level:** Access register bitfields by name
- › **Driver Level:** Combines register configurations to be easily executed using function calls
- › **Function Level:** Initialization, configuration, start and stop of any AURIX™ peripheral

iLLD

System integration

- › Seamless integration into development environment
- › Single folder containing the software driver stack



Application example

I2C initialization

```
/* set I2C Configuration */
IfxI2c_I2c_Config config;
config.baudrate = 400000; /* I2C-bus speed: 400 kbps */
IfxI2c_I2c_initConfig(&config, &MODULE_I2C0);

/* init I2C Module */
App_I2cBasic g_I2cBasic;
g_I2cBasic.i2cAddr = 0xA0; /* I2C-bus Device Address */
IfxI2c_I2c_initModule(&g_I2cBasic.i2c, &config);
```

Overview

- › Initialization of the I2C transceiver module

Advantages

- › Easy configuration by using existing configuration structure
- › Easy initialization using existing 'initModule' function

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Edition 2020-06

Published by

Infineon Technologies AG
81726 Munich, Germany

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Document reference

AURIX_Training_2_Low_Level_Driver

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