iLLD Infineon Low Level Driver

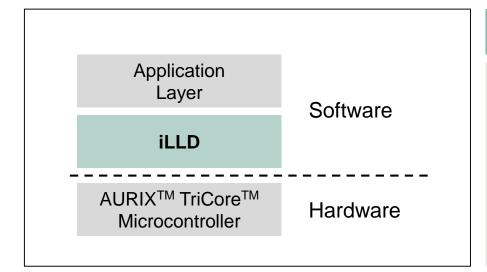
AURIX™ TC2xx Microcontroller Training V1.0 2019-03



iLLD

Infineon Low Level Driver





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

Customer Benefits

 Reference code for various application scenarios

Hardware abstraction

 Enables easy microcontroller peripheral configuration, initialization and usage

iLLD Demos included



Several code examples are included for reference:



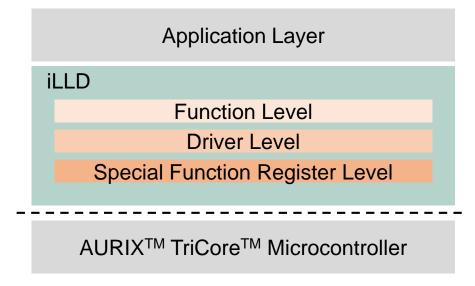
- These enable
 - getting started quickly
 - creating a first successful running application quickly
 - easily following recommended initialization flows

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Hardware abstraction



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



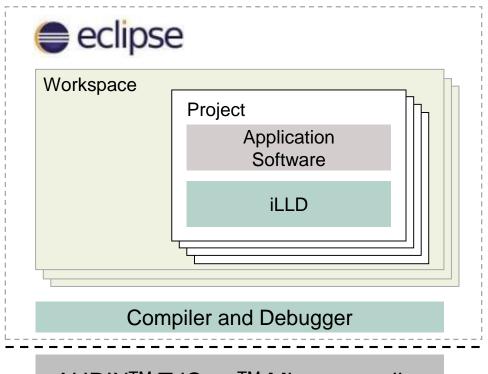
- Special Function Register Level: Access register bitfields by name
- Driver Level: Combines register configurations to be easily executed using function calls
- > Function Level: Initialization, configuration, start and stop of any AURIX™ peripheral

iLLD

System integration



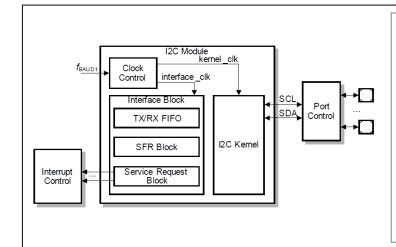
- Seamless integration into development environment
- Single folder containing the software driver stack



AURIX[™] TriCore[™] Microcontroller

Application example I2C initialization





```
/* set I2C Configuration */
IfxI2c_I2c_Config config;
config.baudrate = 400000; /* I2C-bus speed: 400 kbps */
IfxI2c_I2c_initConfig(&config, &MODULE_I2CO);

/* 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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