# Infineon Low Level Driver (iLLD)

## Key Features
- Demos included
- Hardware abstraction

## 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

## 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  ...

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

Overview

› Initialization of the I2C transceiver module

Advantages

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

/* 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);
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