

## TriCore™ AUDO MAX Family: Architecture and Peripherals - Face-to-Face Training

### Objectives

You know the architecture, basic on-chip periphery and specifics of the TriCore™ device family. You are able to program low-level drivers (initialization routines for peripherals) for this microcontroller and test them with a debugger. Moreover, you can generate interrupt and trap routines.

### Participants

Software and hardware architects, software and hardware developers, test engineers

### Requirements

Knowledge of ANSI-C as well as experience with programming and the set-up of a microprocessor/microcontroller system. Knowledge of DSP is an advantage.

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### Content

#### Infineon TriCore™ Architecture: Overview

#### TriCore™ Core Version V1.6

- CPU, pipelines, register sets
- Memory model, local memory units
- DSP support
- On-chip bus systems

#### TriCore™ Ports (Pin Definition and Port Functions)

#### Protection System

#### Interrupt System

#### TRAP System

#### Peripheral Control Processor PCP2

#### Direct Memory Access Controller DMA

#### TriCore™ Peripherals, AUDO MAX Family (TC1798/93/91/84/82/28/24)

#### Serial Interfaces

- Asynchronous serial interface ASCx
- Synchronous serial interface SSCx
- Micro second channel MSCx
- Micro link interface MLI
- MultiCAN
- FlexRay™

#### Timer

- System timer STM
- General purpose timer arrays GPTA
- Capture compare unit CCU

#### Analog-to-Digital Converter ADCx

#### Fast Analog-to-Digital Converter FADC

**Sensor Interface SENT****External Bus Unit EBU (TC1793, TC1798)****System Control Unit SCU, Reset, Power Management**

- Start-up process
- Resets (power-on, HW, SW, WDT, deep sleep reset)
- Clock control, PLL
- Power management
- Watchdog timer WDT

**Device Initialization with DAVE****Debug Support (OCDS) and Environment Tools: Overview****Practical Exercises**

- Initialization of periphery, interrupt handling, DMA application and PCP programming

**RECOMMENDATION.**

- To get trained in hardware-near C and embedded programming, please see our training "Embedded C: Efficient Use of Programming Methods and Tools for Embedded Applications".

**FACE-TO-FACE TRAINING****Price \*            Duration**

-                    5 days

Training code: E-TRI-AM

\* Price per attendee, in Euro plus VAT

**Face-To-Face - German****Duration**

5 days

**Coaching**

Our coaching services offer a major advantage: our specialists introduce their expertise and experience directly in your solution process, thus contributing to the success of your projects.

We will be happy to provide you with further information or submit a quotation tailored to your requirements.