

PXROS-HR Certified RTOS

Objectives

After the PXROS-HR training, you are familiar with the mechanisms and concepts of this real-time operating system for the Infineon TriCore™ architecture.

You understand the RTOS application and the relation with the TriCore™ memory protection unit (MPU) mechanism.

Participants

Software developers and system engineers who want to develop operating system applications for safe and secure systems.

Requirements

You know the Infineon TriCore™ architecture and its memory protection unit (MPU). Knowledge of operating system mechanisms is an advantage.

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Content

Multicore Real-Time Microkernel

Message-based Communication

Interrupt Lock-Free Kernel

Static / Dynamic Resource Management

Tasks in PXROS-HR

- Task configuration/ initialization and activation
- InitTask stacks
- Task local variables
- Task priority and privilege level
- Task interface
- Task execution loop
- Tasks in PXROS-HR context
- Anatomy of a task
- Task priorities
- Task context change
- MPU-protected data and code areas

Inter-Task Communication

- Events
- Messages, message types, mailboxes, basic message flow
- Shared memory

Peripheral Handling

- Extended memory regions
- Access to HW peripherals
- Event-driven peripheral service
- Peripheral driver

Time in PXROS-HR

- Timer setup
- Timer tick
- Task periodic timer
- Time-out event
- Periodic events

PXROS-HR Multicore Concept**AURIX-2G Setup and Linker/Locator**

- Startup code
- Interrupt and TRAP tables
- CSA regions
- PXROS-HR kernel and task placement
- Memory assignment in AURIX-2G
- Configuration table

FACE-TO-FACE TRAINING

Price *	Duration
1.400,00 €	2 days

Training code: E-PXROS

* Price per attendee, in Euro plus VAT

Face-To-Face - German

Date	Duration
05.06. – 06.06.2025	2 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.