

## Real-Time Systems

### Design and Program Embedded and Real-Time Systems

An embedded real-time operating system (RTOS) is a software platform that is specifically designed to support the development of real-time applications. These systems are used in a wide range of applications, including aircraft control systems, military systems, industrial control systems, and medical devices.

The courses cover a range of topics related to embedded RTOS, including RTOS fundamentals, RTOS architecture and design, and RTOS development using specific platforms such as FreeRTOS, AzureRTOS ThreadX and ZephyrOS. These courses are designed to provide professionals with the skills and knowledge they need to develop and maintain real-time systems that are reliable, efficient, and scalable.

Moreover as creating systems that work in real-time pose specific challenges ac6 provides also courses to explain you all the specific techniques and tools to use in this context.

**oRT1 - Linux Real-Time and Multi-Core programming** Programming Linux real-time and multi-core systems, avoiding common pitfalls

The Linux Real-Time and Multi-Core programming course from AC6 covers the design and implementation of real-time applications on Linux systems.

The course covers topics such as real-time scheduling, interrupt handling, and multi-core programming, and is designed to give professionals the skills they need to develop reliable and efficient real-time systems on Linux platforms.

This course is suitable for developers with a basic understanding of Linux and programming concepts, and is designed to provide a strong foundation in real-time and multi-core programming. Upon completion of the course, attendees will be able to design, implement, and debug real-time applications on Linux systems with confidence.

**oRT3 - Real Time Programming with FreeRTOS** This is a Live Online Training

The Real Time Programming with FreeRTOS course from AC6 covers the design and implementation of real-time applications using the FreeRTOS operating system. The course covers topics such as task scheduling, synchronization, and memory management, and is designed to give professionals the skills they need to develop reliable and efficient real-time systems using FreeRTOS.

This course is suitable for developers with a basic understanding of real-time systems and programming concepts, and is designed to provide a strong foundation in FreeRTOS development. Upon completion of the course, attendees will be able to design, implement, and debug real-time applications using FreeRTOS.

**oRT5 - Zephyr Real Time Programming** This is a Live Online Training

Throughout the course, you will learn about scheduling, thread management, memory management, resource management, and device drivers.

**oRT6 - Real Time Programming with Eclipse ThreadX** Real-time programming applied to ThreadX (previously Azure RTOS - ThreadX) course will give you the skills and knowledge needed to create real-time applications.

**oSTG - STM32 + FreeRTOS + IwIP** This is a Live Online Training

In this course, attendees will learn how to use STM32 System on Chips (SoCs) effectively and efficiently, as well as how to integrate FreeRTOS and IwIP.