

# Developing Multimedia Solutions with the VCU and GStreamer

Online Live

Workshop

## Applicable Technologies

Xilinx® Zynq® UltraScale+™ MPSoC

## Requirements

Basic knowledge of video technology and Video Codec Unit (VCU)  
Intermediate level of knowledge of Zynq® MPSoC

## Contact

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## Fee (net per person)

**OL** € 1,300

**WO** € 1,700

## Inclusive

Training material

Plus beverages during breaks  
Lunch

## Duration

2 days

2 days

## Workshop

Learn how to build and run complex multimedia applications targeting Zynq® UltraScale+™ MPSoC EV devices with the help of the GStreamer framework.

This course illustrates how the use of the hardened video codec unit in the EV device helps to achieve optimum performance by offloading critical tasks to the dedicated processing engines.

You will get an overview of multimedia solutions provided by Xilinx® to develop a multimedia application targeting Zynq® UltraScale+™ MPSoC EV devices. The encoder and decoder functionalities of a video codec unit are explained and how it needs to be controlled from the APU processor system.

The course also describes the software stack provided by Xilinx® for developing multimedia applications. In particular, the use of the GStreamer framework from the software stack to create various multimedia pipelines enables a higher efficient real-time multimedia development process.

Due to accompanying exercises, the course offers in-depth and practice-oriented training. Attendees of the online live course will do the practical exercises in the afternoon on their own.

## Agenda

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| <ul style="list-style-type: none"> <li>01. Xilinx® multimedia solutions</li> <li>02. Zynq® UltraScale+™ MPSoC: multimedia blocks</li> <li>03. The Video Codec Unit (VCU) in Zynq® UltraScale+™ MPSoC</li> <li>04. VCU-supported standards and VCU latency and performance</li> <li>05. VCU software stack</li> </ul> | <ul style="list-style-type: none"> <li>06. Introduction to the GStreamer framework</li> <li>07. Video-supported frameworks in Linux: V4L2, DRM, KMS</li> <li>08. Multimedia connectivity and processing IPs</li> <li>09. Streaming pipeline using GStreamer</li> <li>10. Xilinx® audio and graphics solutions</li> </ul> |
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