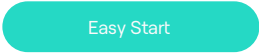


Easy Start Embedded for Zynq-7000 SoC Systems



Applicable Technologies	Requirements	Contact
Xilinx® Zynq®-7000 SoC	Basic knowledge of embedded controller, FPGA technology, and the programming languages VHDL and C	Michael Schwarz P. +49 7664 91313-15 E. info@plc2.de
Fee (net per person)	Inclusive	Duration
ES € 1,900	Xilinx® evaluation board with example solutions Training material Beverages during breaks Lunch	2 days

Workshop

This workshop introduces the FPGA designer into the world of embedded designs based on the proven Zynq®-7000 SoC technology. This class teaches the attendee how embedded systems can be created and customized with the Zynq®-7000 SoC devices and introduces the principles of embedded software development on the architecture’s CPUs.

During the two days, each attendee will carry out all important steps of the development phase: generation of the hardware platform, incrementally extend hardware functionality, create and bind software libraries to create executable applications. All required concepts are trained in lab sessions and verified on an evaluation board.

Along with the introduction of the device family features, the attendee learns the methodology to implement an embedded application on the Zynq®-7000 SoC architecture. Emphasis is placed on the project planning of embedded designs taking advantage of the Zynq®-7000 SoC family and the Vitis™ unified development platform.

A more detailed coverage is available in the PLC2 Power Workshop »Professional Zynq-7000 SoC«, or the three-day courses »Compact Zynq-7000 SoC for the Hardware Designer« and »Compact Zynq-7000 SoC for the Software Designer«.

Agenda

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| <ul style="list-style-type: none"> 01. Zynq®-7000 SoC architecture basics 02. IP integrator and the PS configuration wizard 03. Software development using Vitis™ 04. Adding hardware to an embedded system 05. Designing a custom AXI peripheral 06. Adding custom IP to embedded systems 07. Interrupts | <ul style="list-style-type: none"> 08. Application debugging <p>Exercises</p> <ul style="list-style-type: none"> 01. Hardware construction using the IP integrator tool 02. Adding and downloading software 03. Adding IP to a hardware 04. Building custom AXI IP for embedded systems 05. Integrating a custom peripheral 06. Software interrupts 07. Debugging |
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