

ExpressWorkshop FPGA FPGA Tuning

The 1-day ExpressWorkshop „FPGA Tuning“ is designed for the developers to understand the various important factor which are responsible for optimizing the FPGA such as design space, speed etc. the performance of FPGA can be improved using many different strategies and techniques:

- The manner of writing description language VHDL (coding styles) substantially affect the performance.
- The options used for synthesis and implement design.
- The way of defining the Area/Timing constraints defined and refined to be used frequently on success or failure of a development decision.

Based on detailed FPGA design flow, the above mentioned strategies will be implemented and analyzed by presenting a design Example.

Applicable technologies

All kind of FPGA Technologies

Requirements

Basic knowledge of FPGA

Duration and Cost

Duration: 1 day

Cost: € 180, – net per person, including detailed training material, drinks in the breaks and lunch.

Agenda

Overview Spartan III Family

- Understanding the Slice
- Logic Levels & Delay
- Flip Flops & Latches
- Memory, Multiplier & Co.

Coding Style for FPGAs

- Clocks
- Performance by Design

Design Constraints

- Area Constraints
- Basic Timing Constraints

Implementation Control

- physical implementation options (Translate, Map, Place & Route)
- finding the best placement
- finding the best routing

