Report on activities

EUG27 Meeting

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Agenda

- "Introduction to VHDL" training
- FPGA Development Kits
- Verification seminars

"Introduction to VHDL" training

- Last session attended by 10 people
  - 100% of people who gave feedback, would recommend the course
- We have used the ISE 13.4 (Win64) and ISim during the training
  - Only few tool crashes during the class
  - Multiuser Windows Server 2008 environment (RDSEDA service)
  - No problems with missing settings, conf. files etc.
- None of the students interested in Altera … but we have used the Altera Quartus tutorial inside the class ☺
- … for the future:
  - I'm considering to use development kits during the class (ISim + hardware simulation demo[FFT])
  - We could use low cost kits, one unit per student. Price <$100/unit. Price of the course => Price of the kit
  - Another possibility is to use more complete kits (Zed [Community] Board, Zynq ~ 300 $), One kit per two students – 4 kits total
- First feedback:
  - 1.5 day seems to be OK
  - More diagrams/visual aids should be used on slides
  - More time should be spent to explain VHDL specifics (more tricky to newcomers):
    - Delta delays
    - Type conversion
  - Short introduction to number systems would help to understand arithmetic conversion functions.
  - Extra/optional examples for students who are faster than others.
- My opinion:
  - It would be better to have two video projectors available inside the class room:
    - One for source code/tool GUI demonstration
    - Another for the presentation slides

Kits 2012

- Xilinx Zynq ZC702 (Artix-7 + dual **ARM**)

Verification seminars

- Introduction to PSL
  - using PSL assertions for
    - I/O interfaces verification
    - Functional coverage
  - Example: Multichannel DMA engine for PCIe/10Gb Eth
  - September/October 2012

- Introduction to Unified Verification Methodology
  - Short Introduction to Object oriented programming for hardware engineers
  - Introduction to SystemVerilog
  - UVM structure
  - Example: Multichannel DMA engine for PCIe/10Gb Eth
  - November/December 2012