
Designing a Logicore PCI system

Ref : 002841A

Duration : 2 days

OBJECTIVES

- Design a system using the LogiCORE PCI in a Xilinx FPGA
- Explain the basics of the PCI specification and local bus architecture
- Identify PCI signals and how they are used to perform basic PCI bus operations
- Describe the basic Xilinx PCI design flow
- Explain the operation of the Xilinx LogiCORE PCI
- Identify issues with 64-bit/66-MHz PCI and describe design considerations for 66-MHz PCI

RELATED COURSES

- PCI 3.0 Standard (002596A)
- PCI-X 2.0 Standard (002597A)
- PCI-Express Standard (003279A)
- Designing a Logicore PCI-X System (002842A)
- Designing a Logicore PCI-Express System (004552A)

PARTNERS

- This training course is approved by XILINX

PREREQUISITES

- Working experience with ISE
- Intermediate knowledge of VHDL
- Basic knowledge of PCI standard

TRAINING MATERIALS

Software Configuration :

- Xilinx ISE Design Suite 11.3 Logic Edition

Recommended Hardware Configuration :

- Intel Core 2 or equivalent
- Windows XP
- 1 GB Free disk after software installation
- At least 1Go RAM
- Minimum Display resolution : 1024 x 768
- On Site training : video projector



Contact

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Course also available
customized

Next sessions, see : <http://www.mvd-training.com/en/schedule.html>

TOPICS

1st day

- PCI Bus Architecture
- PCI Signals
- Basic Bus Operations: Transactions, Decoding, and Wait States
- Basic Bus Operations: Target, Parity, and Arbitration
- PCI Addressing and Bus Commands
- PCI Configuration
- 64-Bit and 66-MHz PCI
- PCI Timings
- Practical Design of PCI Agents

2nd day

- The LogiCORE PCI Solution
- Xilinx 32/33 and 64/66 LogiCORE PCI
- User Application Interface for Target
- User Application Interface for Initiator
- Other User Interface Signals
- Xilinx PCI 64-bit and 66 MHz
- Implementating the LogiCORE PCI
- Design Specific Considerations
- **Lab 1** : Analyzing PCI Bus Transactions
- **Lab 2** : Synthesis and Implementation Using XST

DOCUMENTATION

Training manuals will be given to attendees during training in print.