
Designing a LogiCORE PCI-X system

Ref : 002842A

Duration : 2 days

OBJECTIVES

- This training course helps engineers to implement a flexible PCI-X solution using the Xilinx PCI-X LogiCORE.
- Identify differences between PCI and PCI-X
- Describe the basics of the PCI-X Specification
- Describe the basic Xilinx PCI-X Design Flow
- Identify LogiCORE signals
- Understand the behavior of the PCI-X LogiCORE and how to interface it to a typical user application
- Design a user application that can accommodate operation in both conventional PCI and PCI-X mode

RELATED COURSES

- PCI 3.0 Standard (002596A)
- PCI-X 2.0 Standard (002597A)
- PCI-Express Standard (003279A)
- Designing a LogiCORE PCI System (002841A)
- Designing a LogiCORE PCI-Express System (004552A)

PARTNERS

- This training course is approved by XILINX

PREREQUISITES

- Working experience with ISE
- Intermediate knowledge of VHDL
- Good knowledge of PCI standard
- Basic knowledge of PCI-X 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-X Local Bus Architecture
- PCI-X Signals and Terminology
- Basic Bus Operations : Transactions, Decoding and Wait States
- Basic Bus Operations : Terminations, Parity and Arbitration
- PCI-X Modes
- PCI-X Addressing and Bus Commands
- PCI-X Configuration
- 64-Bit Transactions
- Lab 1 : Analyzing PCI and PCI-X Bus Transactions

2nd day

- The Xilinx PCI-X Solution
- User Application Interface for Target
- User Application Interface for Initiator
- Design Considerations in LogiCORE PCI-X
- Designing Target Agent using LogiCORE PCI-X
- Designing Initiator Agent using LogiCORE PCI-X
- Implementing the LogiCORE PCI-X
- **Lab 2** : Analyzing PCI and PCI-X Bus Transactions
- **Lab 3** : Synthesis and Implementation using XST

DOCUMENTATION

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