1-800-633-1440
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training@mindshare.com

Overview PCI Express 2.0

Let MindShare Bring "PCI Express 2.0" to Life for You
The PCI Express (PCIe) architecture is a third-generation, high-performance I/O bus used to interconnect peripheral devices in computing and communication platforms. PCI Express has been designed into consumer and high-end PCs, embedded computing, and communication markets and has established itself as the bus of choice for on-board I/O connections. This architecture is governed and defined by the PCISIG (Peripheral Component Interconnect Special Interest Group).
MindShare's PCI Express System Architecture course starts with a high-level view of the design to provide the big-picture context and then drills down into the details for each part of the design, providing a thorough understanding of the hardware and software protocols.

You Will Learn:
- How PCIe is backward-compatible with PCI and PCI-X
- The definition and responsibilities of each of the layers in the interface
- How the hardware-based automatic error detection and correction mechanism works
- The various additional levels of error detection and reporting
- The details of the packet-based protocol used by PCIe
- The address space and packet-routing methods used
- How the various power management techniques work
- The details of the configuration registers that provide control and status visibility to software

Course Length: 1 Day

Who Should Attend?
This course is for individuals that need to know the basics of PCI Express without needing all the low-level implementation or validation details. The course was designed with FAEs and managers in mind.

Course Contents:

- Background Foundation
- PCI Express Devices and Topology
- Transaction Characteristics
- Address Space and Transaction Routing
- Flow Control
- ACK/NAK Protocol
- Physical Layer Logic
- Error Detection and Handling
- Power Management
- Interrupt Support
- Introduction to Configuration

Recommended Prerequisites:
A basic understanding of digital bus architectures such as PCI is highly recommended.

Course Material:
MindShare will supply a copy of the textbook (either hard copy or eBook) and a downloadable version of the presentation slides.

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BRINGING LIFE TO KNOWLEDGE

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MindShare has over 25 years experience in conducting technical training on cutting-edge technologies. We understand the challenges companies have when searching for quality, effective training which reduces the students' time away from work and provides cost-effective alternatives. MindShare offers many flexible solutions to meet those needs. Our courses are taught by highly-skilled, enthusiastic, knowledgeable and experienced instructors. We bring life to knowledge through a wide variety of learning methods and delivery options.

training that fits your needs

MindShare recognizes and addresses your company's technical training issues with:

- Scalable cost training
- Just-in-time training
- Training in a classroom, at your cubicle or home office
- Customizable training options
- Overview and advanced topic courses
- Reducing time away from work
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MindShare training courses expand your technical skillset

- PCI Express 2.0 ®
- Intel Core 2 Processor Architecture
- AMD Opteron Processor Architecture
- Intel 64 and IA-32 Software Architecture
- Intel PC and Chipset Architecture
- PC Virtualization
- USB 2.0
- Wireless USB
- Serial ATA (SATA)

- Serial Attached SCSI (SAS)
- DDR2/DDR3 DRAM Technology
- PC BIOS Firmware
- High-Speed Design
- Windows Internals and Drivers
- Linux Fundamentals
- ... and many more.

All courses can be customized to meet your group's needs. Detailed course outlines can be found at **www.mindshare.com**

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Classroom Training

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MindShare Virtual Classroom

Virtual In-House Training

Virtual Public Training

Virtual Classroom Training

The majority of our courses live over the web in an inter-active environment with WebEx and a phone bridge. We deliver training cost-effectively across multiple sites and time zones. Imagine being trained in your cubicle or home office and avoiding the hassle of travel. Contact us to attend one of our public virtual classes.

MindShare eLearning

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Comprehensive eLearning Modules

eLearning Module Training

MindShare is also an eLearning company. Our growing list of interactive eLearning modules include:

- **Intro to Virtualization Technology**
- **Intro to IO Virtualization**
- **Intro to PCI Express 2.0 Updates**
- **PCI Express 2.0**
- **USB 2.0**
- **AMD Opteron Processor Architecture**
- **Virtualization Technology ...and more**

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eBooks

MindShare Press

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GENERAL DYNAMICS • HP • IBM • KODAK • LSI LOGIC • MOTOROLA • MICROSOFT • NASA • NATIONAL SEMICONDUCTOR
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