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.
Are your company’s technical training needs being addressed in the most effective manner?

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
- Customizable training options
- Just-in-time training
- Overview and advanced topic courses
- Reducing time away from work
- Training delivered effectively globally
- Training in a classroom, at your cubicle or home office
- Concurrently delivered multiple-site training

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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world-class technical training

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Engage MindShare

Have knowledge that you want to bring to life? MindShare will work with you to “Bring Your Knowledge to Life.” Engage us to transform your knowledge and design courses that can be delivered in classroom or virtual classroom settings, create online eLearning modules, or publish a book that you author.

We are proud to be the preferred training provider at an extensive list of clients that include:

ADAPTEC  •  AMD  •  AGILENT TECHNOLOGIES  •  APPLE  •  BROADCOM  •  CADENCE  •  CRAY  •  CISCO  •  DELL  •  FREESCALE
GENERAL DYNAMICS  •  HP  •  IBM  •  KODAK  •  LSI LOGIC  •  MOTOROLA  •  MICROSOFT  •  NASA  •  NATIONAL SEMICONDUCTOR
NETAPP  •  NOKIA  •  NVIDIA  •  PLX TECHNOLOGY  •  QLOGIC  •  SIEMENS  •  SUN MICROSYSTEMS  •  SYNOPSYS  •  TI  •  UNISYS