

ACS-3 Commands for Software Engineers

Let MindShare Bring “ACS-3 Commands for Software Engineers” to Life for You

MindShare brings the ACS-3 Commands course to life through its interactive classroom style. This course covers an introductory SATA 3.2 protocol overview without going into physical layer. The course focus remains understanding key important ACS-3 commands and feature sets.

You Will Learn:

- The sequence of events associated with SATA initialization, including Out Of Band (OOB) signaling
- How to verify proper command protocol associated with each of the command categories
- How to verify proper control protocol associated with writes to the Control register
- The operation and performance advantages of Native Command Queuing (NCQ)
- Understand the most important ACS commands and feature sets

Course Length: 2 Days

Who Should Attend?

Firmware developers, software developers, and system validation engineers will all benefit from this course.

Course Contents:

- Part 1: Introduction to the SATA Link
 - Introduction to Link Interface
 - FIS Transmission Example
 - FIS Definition
 - Error Detection & Handling
- Part 2: Device and R/W Protocols
 - Control Protocols
 - PIO Protocols
 - DMA Protocols
 - NCQ Protocols
- Part 3: Common Commands and Feature Sets
 - Introduction to Logs
 - General Set Features
 - SMART (Self-Monitoring, Analysis and Reporting Technology)
 - SCT (SMART Command Transport)
 - Power Management
 - APM (Advanced Power Management)
 - EPC (Extended Power Conditions)
 - PUIS (Power-Up In Standby)
 - Sanitize
 - Security
 - Download Microcode
 - Log Pages

Recommended Prerequisites:

A solid understanding of one or more storage bus protocols such as ATA or similar architecture is recommended but not required.

Course Material:

- 1) Presentation PDF handout
- 2) MindShare's SATA Storage Technology eBook (PDF)
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Publisher: MindShare Press



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