Forum F1B (morning) / F2B (afternoon)

Flash Memory-Based Architectures: A Technical Discussion

Chair: Brian A. Berg
Independent Consultant
Berg Software Design
www.BergSoftware.com
Overview of Tutorial Topics

• Architecture’s effect on
  • Data integrity, availability and reliability
  • Wear leveling
• Architectural implications of targeted performance
  • max IOPS v. max MB/sec
• Flash allocation defragmentation
  • page/block failure handling
  • data consolidation and garbage collection
  • TRIM command
• Device architecture as dictated by interface
  • Internal (PCIe) v. external (SATA, FC, SAS, USB)
Today’s Speakers

- Justin Sykes: Micron
  - Accommodating Solid State Storage in Your Favorite OS
- David Flynn: Fusion-io
  - An In-Depth Examination of the Workings of an SSD
- Scott Stetzer, Scott Shadley: STEC
  - Demystifying the Solid State Drive: Its Limitations, Usage and Benefits
- Alan Fitzgerald: SMART Modular Technologies
  - SSD Architecture Considerations for a Spectrum of Enterprise Applications
- Bill Roman: Datalight
  - Using the Appropriate Wear Leveling to Extend Product Lifespan
- Bob Pierce: Denali Software
  - High-Speed NAND Flash: Design Considerations to Maximize Performance
Slides Available Online

• All of today’s presentations will be available online late this evening at this site:
  • www.StorageCornucopia.com
• This is my website, with links to various storage topics