

# Forum F1B (morning) / F2B (afternoon)

## Flash Memory-Based Architectures: A Technical Discussion

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# 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](http://www.StorageCornucopia.com)
- This is my website, with links to various storage topics