



SoftRAID 3 overview



The University of Utah

Student Computing Labs



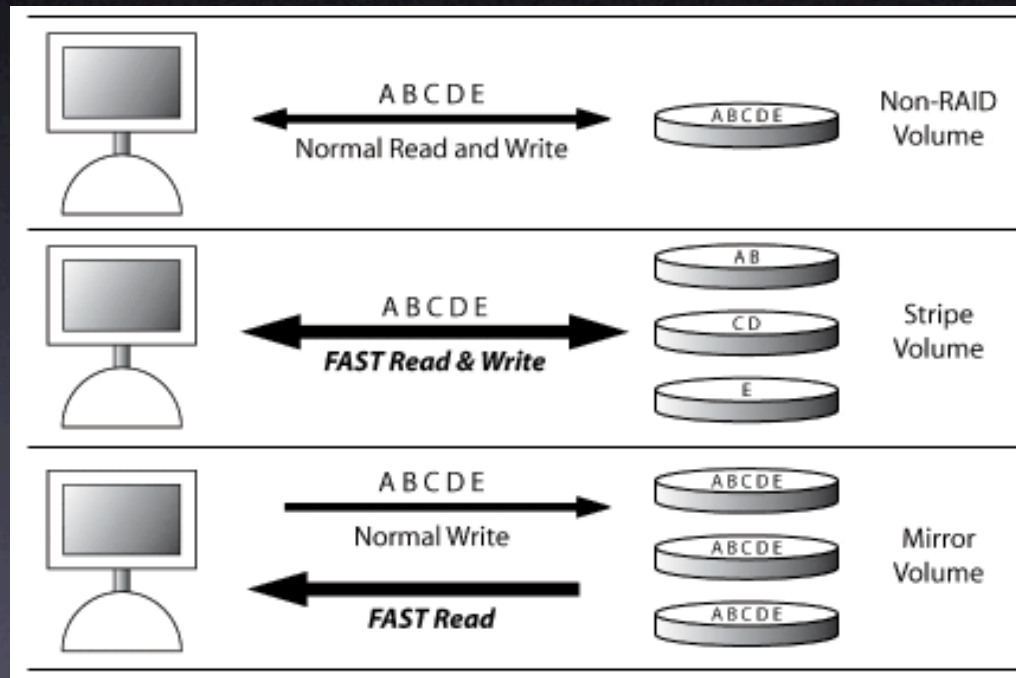
What is SoftRAID 3?

- Software RAID solution for Mac OS X (Redundant Array of Independent Disks)
- Supports RAID 0 (striped), RAID 1 (mirrored), and non-RAID volumes
- Supports a mix of ATA, SATA, SCSI, USB, FireWire, and Fibre channel drives
- Now supports mirrored boot volumes
- RAID's will be as fast as slowest drive



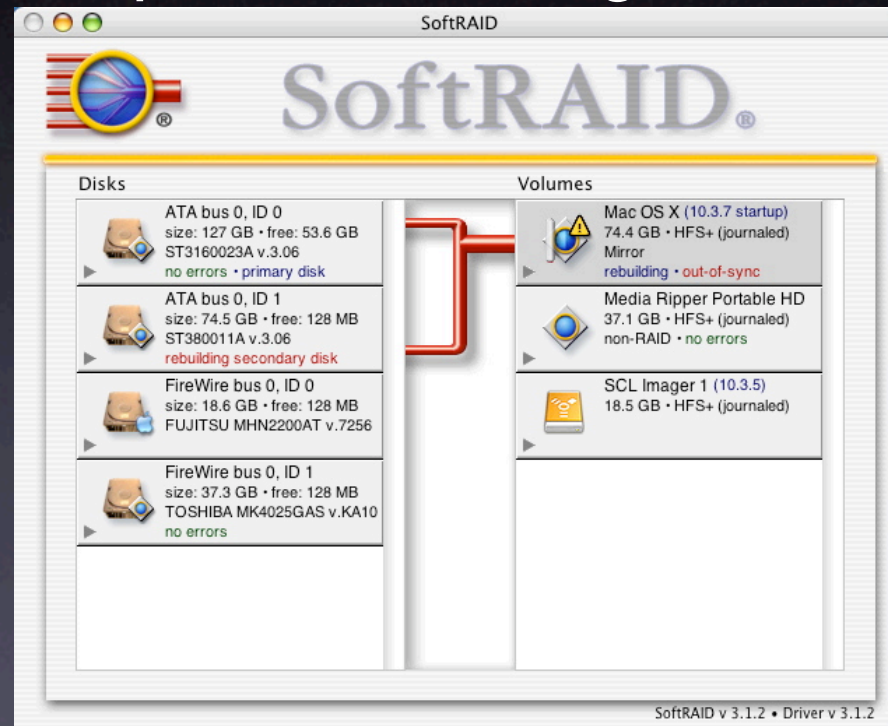
Features

- Supported RAID types:



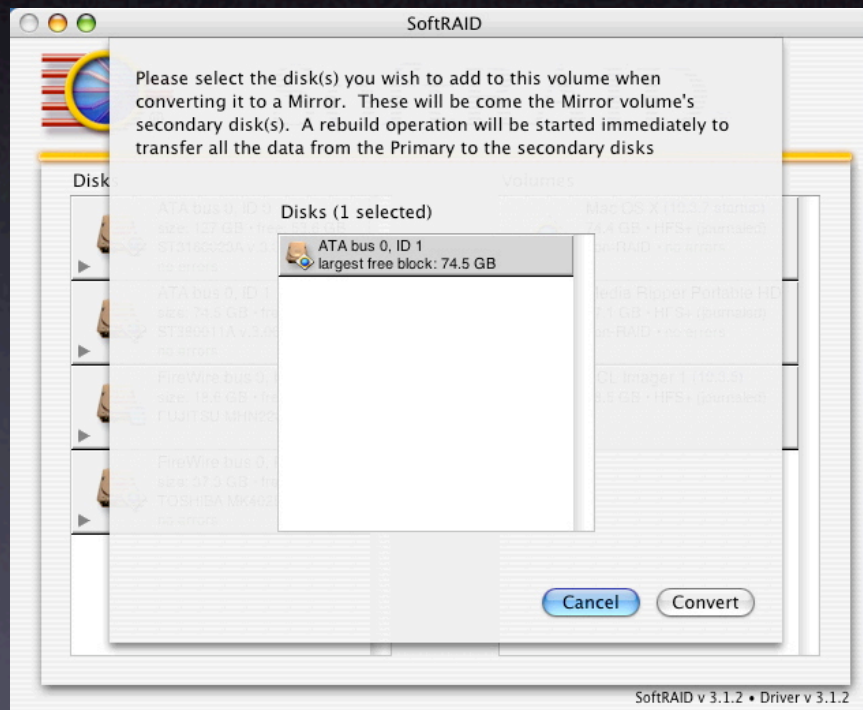
Features

- Nice simple disk management GUI:



Features

- Dynamically add/remove disks to/from RAIDs



Features

- Converts existing Apple disks and RAIDs (unless failed)
- Don't have to reformat to create RAIDs
- Automatic alert windows
- Automatically rebuilds out-of-sync RAIDs



Features

- Converts existing install/repair boot CDs to work with SoftRAID volumes
 - “fully compatible with DiskWarrior”



Features

- Disks can be optimized for:
 - **Workstation** - best for general purpose use, day-to-day tasks, etc.
 - **Server** - This setting optimizes a volume to handle many small i/o operations simultaneously.
 - **Digital Video** - allows for very large or sustained i/o transfers. Good for apps with dedicated display/capture cards.
 - **Digital Audio** - This makes a volume optimized for many small transfers. Artificially slows down the transfer rate to provide compatibility with PCI cards which support audio capture, output or video effects.



Why use SoftRAID?

SoftRAID vs. Apple's RAID	SoftRAID	Apple's RAID
Graphical Interface		
Easy to use GUI	yes	no
Manage RAID from a GUI	yes	no
Graphically show the status of all volumes	yes	no
Graphically shows links between disks and volumes	yes	no
RAID Functionality		
Create non-RAID volumes on same disks as RAID volume	yes	no
Creates RAID 1 volumes	yes	yes
Creates Raid 0 volumes	yes	yes
Customize Stripe Unit Size	yes	no
Starts up from a Mirror volume	YES!	Some hardware
Create custom volume sizes	yes	no
Reads from all Mirror disks	yes	yes
Ability to disable stripe reads	yes	no
Optimize volumes for Workstations, Server, Digital Video, Digital Audio	yes	no



Why use SoftRAID?

Mirror features		
Add disks to a Mirror volume	yes	no
Split disk from a Mirror volume	yes	no
Split a Read Only Secondary volume	yes	no
Rebuild a Mirror volume in the background	yes	yes (Panther only)
User Notification		
Report when a I/O error occurs	yes	no
Report a Mirror failure or out-of-sync condition	yes	no
Notification when a Mirror is out-of-sync	yes	no
Miscellaneous Features		
Track I/O counts on disks and volumes	yes	no
Track recoverable errors	yes	no
Write I/O errors to the system log	yes	no
Enable/disable journaling dynamically	yes	no
Blink disk light	yes	no
Zero Disk functionality	yes	yes
Depicts bay numbers in XServe	yes	yes



Pros

- Much less expensive than a hardware RAID solution
- Lets you mix drive and bus types
- Lets you create and rebuild RAIDs more dynamically than Apple RAID
- Don't have to reformat to set up RAID



Cons

- SoftRAID volumes will only appear on systems with the SoftRAID driver
 - Target disk mode won't work
- Utility boot CDs (DiskWarrior, TechTool, etc) will not recognize SoftRAID volumes
- Disk names don't appear in Bootpicker
- More likely to have OS conflicts?



Conclusion

- Very good and useful app (now that it's bootable)
- Stability issues?
- Needs to have email alerts
- Benefits far outweigh Apple's RAID



System Requirements

- Mac OS X 10.2 or higher
- Built-in G3/G4/G5 processor (works with processor upgrades, but not supported)
- 2 or more drives for RAID
- Beige/B&W G3s not recommended for FireWire RAID



Pricing

- \$129 download, \$149 physical, \$99 upgrade from 2.x
- 2.x is still available for OS 9, same price as 3.x.



Demo...



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