SoftRAID 5.7.3 Release Notes
January 4, 2019

SoftRAID 5.7

SoftRAID 5.7 includes important bug fixes and changes that improve SoftRAID compatibility with macOS 10.14 Mojave.

This version adds additional protection against Mac OS system bugs which can cause volume corruption.

SoftRAID 5.7 also adds code which collects disk and computer usage information and sends it anonymously to the SoftRAID team. The user must opt-in before this data collection is enabled. This information will be used to prioritize which features which are enhanced in future versions of SoftRAID. The disk usage information will be used to enhance the SoftRAID disk failure prediction mechanism.

Major Features introduced since SoftRAID 5.0:

• SoftRAID Easy Setup application (SoftRAID 5.6). Creating RAID volumes is now quick and easy, for beginners or those with less technical expertise.

• Support for SMART reporting on USB and FireWire disks (SoftRAID 5.6). With SMART over USB, SoftRAID now supports health monitoring and failure prediction for USB and FireWire connected disks.

• Addition of simplified Chinese localization (SoftRAID 5.6) brings to 5 the number of languages supported by SoftRAID. Support for French, German and Spanish came in SoftRAID 5.5 and Japanese was added in SoftRAID 5.5.5.

• Man page for SoftRAIDTool (command line tool) added in SoftRAID 5.5.5

• Ability to convert stripe (RAID 0) volumes to RAID 1+0, and some RAID 0 volumes to RAID 4 (SoftRAID 5.5).

• Additional information shown for disks which are predicted to fail, making disk problems easier to investigate (SoftRAID 5.0.6).

• Support for RAID 4, 5 and 1+0 volumes. Macs can use any SoftRAID volume as a startup volume (SoftRAID 5.0).

• Convert AppleRAID stripe (RAID 0) and mirror (RAID 1) volumes to SoftRAID (SoftRAID 5.0).

• SoftRAID status indicator added to menu bar (SoftRAID 5.0).

• Huge improvements to speed and performance throughout most releases.

System Requirements:

SoftRAID requires Mac OS X 10.8.5 or later.

SoftRAID requires a Mac which contains a Core 2 Duo or later processor. It will not work on early Intel Macs with Core Duo processors.

Known Bugs:

• SoftRAID does not support creating, modifying or converting APFS volumes.

• There's a bug in macOS 10.14, Mojave, which causes SoftRAID volumes to not be displayed in the "Storage" tab of the "About this Mac" window.

New features in version 5.7.3:

• Adds support for Akitio Thunder3 Quad X and Thunder3 Quad mini to SoftRAID XT and SoftRAID Lite XT.

Bugs fixed in version 5.7.3:

• Fixes a bug in the SoftRAID application which can causes the "Zero Sectors" feature to fail. This would occur on NVMe blades which had 4 KB sectors and a maximum transfer size of 128 KB.

• Fixes a bug in the SoftRAID application which causes the "15 minutes" option to display twice when certifying disks.

• Fixes a bug in the SoftRAID application and SoftRAID Monitor which prevents SSDs with uncorrectable errors from being marked as predicted to fail.

• Changes the way that SoftRAID Tool reports fatal errors. These are now written to the SoftRAID.log rather than the system.log file.

New features in version 5.7.2:

• Enabled code in the SoftRAID application to display the OWC product registration page when a new ThunderBay 6 is attached to the Mac.

• Added code to work around problems in Mac OS which can cause applications to be quarantined by the Finder indefinitely.

Bugs fixed in version 5.7.2:

• Fixed a bug in the SoftRAID application which caused clipping in the more info text of the collect system info opt-in dialog. This was only visible when SoftRAID was run with some non-English languages.

• Fixed a bug in the SoftRAID XT version of SoftRAID Easy Setup which caused it not to recognize disks in OWC enclosures.

• Fixed a bug in the SoftRAID XT application which prevented it from working with disks in OWC Mercury Elite Pro Quad enclosures.

• Fixed a bug in the SoftRAID application which caused newly created or erased volumes to be write protected when running Mac OS 10.14.

• Fixed a bug in the SoftRAID application which prevented the "no errors" string from being displayed if a disk had not been initialized to SoftRAID format.

- Fixed a bug in the SoftRAID application which could result in unmountable volumes. This could occur if a user selected a RAID 4 or RAID 5 volume which was missing 2 or more disks and selected "Remove Missing Disks" from the "Volume" menu.

- Fixed a bug in the SoftRAID application and SoftRAID Monitor which caused some SSDs to be incorrectly marked as predicted to fail.

New features in version 5.7:

- Changed the way that SMART statistics are collected in SoftRAID Monitor. The new code checks SMART every time a disk is inserted rather than waiting for the next scheduled time for checking SMART.

- Increased protection from corrupted volumes caused by Mac OS kernel bugs.

- Added the ability to collect anonymous disk and system information and send it to the SoftRAID team. This will allow the SoftRAID team prioritize work on the features our customers use most. The user must opt-in to enable the collection of this data.

- Added the ability to collect anonymous SMART data from disks and send it to the SoftRAID team. This will allow us to further improve our code which predicts disk failure. The user must opt-in to enable the collection of this data.

Bugs fixed in version 5.7:

- Fixed a bug in the SoftRAID driver which could cause a kernel panic if a volume was unmounted and then unplugged. This would occur when running macOS 10.14 Mojave.

- Replaced SoftRAID Easy Setup application with a 64 bit version.

Bugs fixed in version 5.6.7:

- Fixed a in the SoftRAID XT and SoftRAID Lite XT applications which affects serial number validation.

New features in version 5.6.5:

- Added a new version of the SMART over USB drivers. This version adds support for USB disks connected via CalDigit ThunderBay 2 docks. It also adds support for USB enclosures which use the JMicron interface chip.

- Added enhancements to better support the OWC ThunderBlade V4.

Bugs fixed in version 5.6.5:

- Fixed a bug in the SoftRAID XT, SoftRAID Lite and SoftRAID Lite XT applications which caused the incorrect web page to be displayed when the user selected "Upgrade to SoftRAID" menu item under the SoftRAID menu. Previous version would display the purchase page on the SoftRAID web site. The upgrade page is now displayed instead.

- Fixed a bug which caused the SoftRAID application to always indicate that SMART over USB was disabled.

- Fixed a bug in SoftRAID Easy Setup which caused it to exit with an error right after it is launched. This occurred when SoftRAID Easy Setup was used with SoftRAID XT and SoftRAID Lite XT.

- Fixed a bug in SoftRAID Easy Setup which caused valid serial numbers for SoftRAID XT and SoftRAID XT Lite to be reported as invalid.

New features in version 5.6.4:

- With SoftRAID 5.6.4 'SoftRAID for ThunderBay' has been renamed 'SoftRAID XT', and 'SoftRAID Lite for ThunderBay' is now 'SoftRAID Lite XT'. (SoftRAID XT is a version of SoftRAID bundled with OWC hardware).

- SoftRAID now reports the number of total bytes written for most SSDs. If available, this is displayed in the disk tile for the SSD (in SoftRAID's main UI window). We will be adding support for additional SSDs in the future. If the total bytes written value does not appear for your brand of SSD, please contact support@softraid.com so we can add it.

- Added support for future OWC products to SoftRAID XT.

Bugs fixed in version 5.6.4:

- SoftRAID 5.6.4 contains a work-around for a macOS bug which caused a kernel panic every time Apple's Disk Utility program was used to erase a SoftRAID disk. This bug was introduced in Mac OS 10.12. With this work-around, the Mac no longer kernel panics but the Disk Utility application still hangs.

- SoftRAID takes security very seriously, and all SoftRAID DMG files are now code signed, so users can be certain the image they download from our site is an unaltered DMG file.

- SoftRAID 5.6.4 fixes a bug which caused the SoftRAID Tool to crash when volumes were unmounted or initialized using the command line interface.

Bugs fixed in version 5.6.3:

- The SoftRAID driver was changed to be compatible with a kernel security feature added in macOS 10.13, High Sierra. High Sierra includes increased kernel security features which cause the behavior of some kernel functions to change. These changes cause disks hang when used with previous releases of SoftRAID.

- The SoftRAID driver has been changed to handle disk errors better. Previous releases could cause a kernel panic with RAID 4 and 5 volumes if there was a read error during a cache flush operation. Cache flush operations result in read/modify/write operation to disks.

- The SoftRAID driver has been changed to use fewer threads. MacOS 10.13, High Sierra, now limits the number of kernel threads which can run at one time. If this limit is exceeded a kernel panic results. Previous releases of SoftRAID would cause this limit to be exceeded during disk update operations. This would happen when 4Kn disks were used or when a group of disks contained more than 4 SoftRAID volumes. The new driver uses no more than 1 thread per disk for disk update operations.

- SoftRAID now correctly loads a newly installed SoftRAID driver all the time. If there was no installed driver, previous versions would fail to load a new driver. This bug was introduced in SoftRAID version 5.6.

- This version of SoftRAID loads the correct version of the SoftRAID driver after the driver has been updated. Previous versions of SoftRAID could load the old version of the driver from the driver cache rather than loading the most recently installed version. This would occur if the SoftRAID driver was updated when no SoftRAID disks were attached to the Mac. Subsequently, when a SoftRAID disk was attached, the old version of the driver would load.

- The SoftRAID driver no longer reports read errors on stripe (RAID 0) volumes as write errors.

- The command line interface of the SoftRAID Tool no longer returns an error every time the disk unmount command is used. This command is used to unmount all volumes which use a given disk. In previous versions, this command would return an error even if it was successful.

- The build scripts for creating SoftRAID now code sign all of the SMART over USB drivers. In previous releases, one of these drivers contained the wrong code signature.

New features in version 5.6.2:

- This version is included in all copies of macOS 10.13, High Sierra distributed by Apple. It is functionally identical to version 5.6.1.

Bugs fixed in version 5.6.1:

- Incorporates revised SMART over USB drivers. The changes fix the bug which caused Drobo devices to be unavailable when SMART support for USB and FireWire devices was enabled.

- Fixed a bug in the build script which occasionally caused SoftRAID Easy Setup to fail with an error on macOS 10.12.

New features in version 5.6:

- Added the SoftRAID Easy Setup application which makes creating your first RAID volume quick and easy.

- Added support for SMART reporting on USB and FireWire disks. This allows SoftRAID to monitor the health of these disks and predict the failure of them too.

- Added simplified Chinese translation to SoftRAID.

- Added a 5 second pause at shutdown and restart. This helps prevent corrupted volumes caused by bugs in Mac OS.

- Added a workaround for a bug introduced in Mac OS X 10.10 which causes the system to load an old version of the SoftRAID driver, rather than the one which was just installed. (This bug still exists in macOS 10.12.) The work around is to always force a restart after installing the driver (Apple Bug ID #: 30688985).

Bugs fixed in version 5.6:

- Fixed bug which caused disk certify to not test all parts of a disk. This would happen if you stopped certifying a disk and then resumed certifying it later (SR-427).

- Fixed a bug which caused write errors during the Random Access Test of a disk certify operation. This would only happen on 4Kn disks (disk with a native sector size of 4 KB).

- Fixed a bug which prevented the SoftRAID Monitor from loading if a user had set the umask value.

New features in version 5.5.6:

- Sometimes, when email notifications are sent through a yahoo.com mail account, the subject line gets garbled. This is the result of some, but not all, yahoo email servers being able to handle Q-encoded UTF-8 text. The work around in version 5.5.6 is to detect when the outgoing email account is on yahoo.com and then convert the subject to straight ascii text.
- SoftRAID Lite and SoftRAID Lite for ThunderBay now allow you to delete all volumes created by SoftRAID and SoftRAID for ThunderBay including volumes with RAID levels 4, 5 and 1+0.

Bugs fixed in version 5.5.6:

- Fixed a bug in the SoftRAID Monitor which prevented it from reliably sending email notifications.
- Fixed a bug in SoftRAID driver which could cause mirror volumes to rebuild instantly, leaving secondary disks with invalid data. This would only happen if more than one secondary disk was missing or out of sync. (SR-305).
- Fix a bug in the SoftRAID driver which causes disk errors in mirror and RAID 1+0 volumes (SR-416).
- Fixed a bug in the SoftRAID driver which could cause some RAID 1+0 volumes to fail early in the rebuild process with a disk error (SR-381).
- Fixed problem which caused certifying 4 Kn disks (disks with 4 KB sectors).
- The SoftRAID application no longer crashes when you attempt to create a volume with more than 16 disks (SR-399).
- The volume tile now updates immediately when the user enables or disables the volume's safeguard (SR-320).
- Fixed a bug in the SoftRAID Monitor which could cause log entries to be corrupted or incomplete. This primarily affected the SoftRAID_Email.log file when SMTP logging was enabled.
- Fixed a bug in the SoftRAID application which caused big pipes connected to the volume tiles to be missing 2 pixels on their left side when displayed on Macs with Retina displays (SR-374).
- Fixed a problem with the filename of the Japanese QuickStart Guide. The filename was causing DiskWarrior to say that the file was incorrectly encoded (SR-415).
- Fixed a bug in the SoftRAID Monitor which caused it to display the "Disk is missing from a mirror volume" dialog even when this preference was disabled (SR-413).
- Fixed a bug in the SoftRAID driver which caused the SoftRAID Monitor status indicator in the menu bar to go yellow whenever a mirror read-only secondary volume was attached.
- Fixed several broken links in the SoftRAID On-line help (SR-386).
- Fixed a bug in the SoftRAID Monitor which caused it to sometimes skip the SMART test on startup. This would happen if you configured email notification to send an email on reboot. (SR-303 & SR-299).

- Fixed a bug which caused Tech Support Reports to sometimes be missing volume headers (SR-238).

- Fixed a bug in the SoftRAID driver which prevented it from warning users if a volume was missing a disk. Older versions of SoftRAID would only warn a user once. This version warns a user every time the startup or restart (SR-68).

- Fixed a bug in the SoftRAID Monitor which caused some log entries to be truncated. This especially affected the log entries for disks which are predicted to fail (SR-407).

- Fixed a bug which caused mirror read-only secondary volumes to be identified as mirror volumes in the SoftRAID log (SR-262).

- Fixed a bug which allowed users to attempt to convert AppleRAID RAID 1+0 volumes (SR-406).

- Fixed several bugs which caused incorrect error messages to be displayed when sending test emails in the Email Notification window.

- Fixed a bug in the SoftRAID application which made the error count text in disk and volume tiles display incorrectly if there are 1 or more errors (SR-360).

- Fixed a bug in the SoftRAID Monitor which caused the incorrect IPv4 address to be listed in email notifications (SR-392).

- Fixed a bug in the SoftRAID applications which causes clipping of the text for the "Log SMT commands" preference button in the Servers tab of the Email Notification window. This clipping only occurs when the user is running with German as the chosen language.

- Fixed two bugs in the SoftRAID application where the incorrect text was being displayed when the chosen language was Japanese. The incorrect text was displayed in the Preference and Quit menu items.

- Fixed problem with the title of the Certify Disks dialog (SR-378).

- Fixed a problem with the warning dialog which gets displayed if the user starts certifying an SSD with only 1 pass. The buttons were not translated (SR-379).

- Fixed a typos in mirror dialogs (SR-362 and SR-349).

- Fixed a bug in SoftRAID application which caused disconnected mirror secondary disks to become new volumes when reconnected. This occurred if an additional secondary disks was added to the volume while the first secondary disk was disconnected. (SES-348).

- Fixed a bug which indicated that TRIM was enabled on an SSD when it was actually disabled in the SoftRAID preferences (SR-290).

- Fixed a bug which caused the SoftRAID Monitor indicator to not appear in the menu bar if no SoftRAID formatted disks were attached (SR-386).

- Fixed a bug which caused the SoftRAID Monitor to use a lot of CPU time when it first started up. This was accompanied by warning messages in the system.log file which said that SoftRAID Monitor was "inherently inefficient" (SR-318).

- Improved the capture of volume headers in Tech Support Reports (SR-238).

New features in version 5.5.5:

- Added a work-around to SoftRAID driver to help mitigate damage to volumes caused by the Mac OS bug which causes disks to disappear from the Thunderbolt bus.

- There is now a man page for SoftRAIDTool. Type "man softraidtool" in a Terminal window to view information about using SoftRAIDTool from the command line.

- SoftRAID and SoftRAID Monitor are now localized to Japanese.

Bugs fixed in version 5.5.5:

- The SoftRAID driver would cause a kernel panic when the Thunderbolt cable was repeatedly disconnected and reconnected to a ThunderBay with a 4 disk RAID 5 volume.

- Fixed a kernel panic which could occur when clearing the i/o counts on a disk. This would happen if you cleared the error count on a disk which was part of a volume and the volume was unmountable because it was missing too many disks.

- Fixed a kernel panic which occurs when fsck is run on disks which have a max transfer size of 128 KB.

- Fixed a bug which could cause 2 SoftRAID Monitor menus to be displayed simultaneously.

- Fixed a bug in the SoftRAID application which caused a white rectangle to be drawn at the left edge of each disk and volume tile. This would remain until the main window was resized.

- Fixed a bug in the SoftRAID application which could result in a rebuilt volume which was not in sync. This would happen if you tried 2 times to resize a volume which was out of sync and then let it rebuild after the second resize completed.

- The SoftRAID application now restores a disk's label if you certify or zero a disk and then re-initialize it

- Fixed a bug which caused the progress indicator in the volume to remain after a user tried to delete a volume which could not be unmounted

- Fixed a bug which prevented users from converting volumes back to AppleRAID after the evaluation period had expired

- Fixed bug which could prevent installing the SoftRAID driver on startup volumes other than the boot volume

- Fixed a bug which prevented the SoftRAIDTool from performing zero, verify and certify disk operations if they were run using the command line interface

- Fixed a bug which could cause SoftRAID users to download beta versions of the application by mistake (SR-244).

- Fixed a bug prevented adding SoftRAID Read-Only-Secondary volumes back to their original mirror volume. This bug also prevented converting Read-Only-Secondary volumes to new mirror volumes.

New features in version 5.5:

- SoftRAID can now convert AppleRAID stripe (RAID 0) and mirror (RAID 1) volumes to SoftRAID format. When you convert an AppleRAID volume, all of your files are preserved. You can even convert Apple non-RAID volumes to SoftRAID.

- SoftRAID can now convert stripe (RAID 0) volumes to RAID 1+0. It can also convert some RAID 0 volumes to RAID 4 (requires a stripe unit size of 16 KB).

- The SoftRAID application and SoftRAID Monitor are now translated into French, German and Spanish.

- The user interface now conforms with the look of the Finder in El Capitan, Mac OS X 10.11.

- The SoftRAID Monitor menu bar indicator is now displayed in grey when the user has selected the "Graphite" appearance in the "General" panel of System Preferences.

- The SoftRAID application and volume icons are new.

- The SoftRAID Monitor now detects a bug in Mac OS X which causes disks to be ejected while in use. When this occurs, a dialog is displayed giving the user instructions which can help prevent this bug from reoccurring (for more info, see: https://softraid.com/pages/support/faq/faq_disappearing_disks.html).

Bugs fixed in version 5.5:

- Fix kernel panic bug which occurs when you remove 2 disks from a RAID 5 volume.

- SoftRAID now prevents users from removing disks from RAID volumes in situations where it might result in data loss.

- Fixed a bug which could cause the SoftRAID Monitor to display a dialog indicating that the user was in evaluation mode even when a serial number had been entered.

- Fixed a bug which caused two warning dialogs to appear the first time SoftRAID is run, both of which say that SoftRAID can be used for 30 days in trial mode. This version only displays one of these dialogs.

- Fixed a bug which caused some entries in the SoftRAID.log file to be garbled or incomplete. This would occur when two or more entries were being written simultaneously.

- Fixed a bug which prevented "Uninstall SoftRAID" from deleting the SoftRAID Lite preferences. Using the "Uninstall SoftRAID" menu option in any version of SoftRAID now deletes both the SoftRAID and SoftRAID Lite preferences.

- Rebuild and validate operations now start instantly regardless of volume optimization setting. They run for the first 15 seconds as if the volume were optimized for workstation before using their actual optimization setting.

- The "missing disk" string in the volume tile is now blue for RAID 1 volumes which contain at least 1 in-sync secondary disk. If there are no in-sync secondary disks, the string is red.

- Prevented any disk which has a progress bar from being added to a volume or used to create a new volume.

- The SoftRAID application no longer deletes the SoftRAID.log file when you select Uninstall SoftRAID from the Utilities menu.

- Fixed a bug which allowed a user to shrink a volume to a size smaller than that which is displayed in the Resize Volume window.

- Fixed a bug which caused SoftRAID to display Xsan volumes. SoftRAID would also display an error dialog when it couldn't read from the Xsan volumes.

- Fixed several bugs which affected installing or uninstalling the SoftRAID driver on volumes other than the startup volume.

- Fixed a bug which prevented the SoftRAID application from automatically updating the driver on bootable volumes other than the current startup volume.

- Fixed a bug which prevented the SoftRAID Monitor and SoftRAID application from connecting to the SoftRAID upgrade server.

- Removed the help button from all dialogs which are displayed before the user logs in. The Apple help system does not work until the user logs in so these buttons were non-functional.

- Fixed a bug in the SoftRAID application which caused tiles for AppleRAID volumes to incorrectly indicate that they were missing disks.

- Fixed a bug which could cause the "Launch SoftRAID" menu item in the SoftRAID Monitor menu to launch the incorrect copy of SoftRAID.

- Change SoftRAID application so it no longer creates an error entry in the system.log file (the entry was: "Could not find imaged named 'SR_AppHeaderText'.").

- Fixed a bug which caused the SoftRAID application to stop working if one or more of the volume names included kanji characters.

- Fixed a bug in the SoftRAID driver which could cause the driver event queue to become full. This happened when many degraded volumes were present and would cause a error dialog to appear which said that the driver event queue was full.

- All versions of SoftRAID now use the ThunderBay volume icons if all the disks for a given volume are in a ThunderBay enclosure. Icons only change when a volume is first created.

- Fixed a bug in the SoftRAID Lite application which could cause it to crash when the preferences window was opened if SoftRAID Retail had been run before.

- Fixed a bug in the SoftRAID Lite application which caused it to overwrite the RAID preferences used by the SoftRAID driver for RAID 4, 5 and 1+0 volumes.

- Fixed a bug which caused Tech Support Reports to not include crash logs.

- Disabled serial numbers for purchases which have been refunded or upgraded.

- Fixed a bug which caused the SoftRAID Monitor to crash at launch or when a new serial number was entered.

Bugs fixed in version 5.1.1:

- Fixed a bug in the SoftRAID Monitor which occasionally prevented the Launch SoftRAID menu item from working.

New features in version 5.1:

- This version is fully compatible with Mac OS X 10.11 El Capitan.

- The SoftRAID application now indicates if a disk has TRIM enabled.

- The driver now uses only the primary disks for reading from mirror (RAID 1) and RAID 1+0 volumes if the primary disks are SSDs and some of the secondary disks are HDDs. This results in higher read performance with these volumes.

- You can now resize a SoftRAID volume even if there are other volumes on the same set of disks.

Bugs fixed in version 5.1:

- Fixed a bug that could cause data corruption on RAID 4 and RAID 5 volumes which contain 2 or more unreliable disks.

- Fixed a bug in the SoftRAID driver that could cause data corruption when validating out of sync RAID 4 and RAID 5 volumes.

- Fixed a bug in the SoftRAID application that could cause the application to hang when it was quit. This could happen for instance after a disk was removed from the Mac when SoftRAID was blinking its disk light.

- Added a workaround for a bug in Mac OS X that prevents some volumes from being unmounted.

- Fixed a bug in the SoftRAID driver that caused changes to the list of primary disks for a RAID 1+0 volume to not take effect until after a restart.

- Fixed a bug in the SoftRAID driver that could cause the SoftRAID application to hang if a disk was removed from a volume when it was rebuilding.

- Fixed several bugs that affected how SoftRAID handled volumes that fail during validation due to a read or write error. SoftRAID now displays "validate failed" in the volume tile and adds an entry for the error in the SoftRAID.log file.

- Fixed a bug in the SoftRAID application that prevented it from resuming a disk zero, verify or certify operation if the SoftRAID application crashed or was force quit. The new code saves the current position every 60 seconds so that an operation can be resumed.

- Changed the disk certification code so that errors written to the log now include the pass number.

- Fixed a bug that caused duplicate log entries of errors during disk certification.

- Fixed several bugs in the SoftRAID application that affected adding or removing more than one disk from a volume simultaneously.

- Fixed several bugs that affected rebuilding and validating read-only SoftRAID volumes.

- Fixed a bug in SoftRAID that could result in the maximum volume size being incorrect in the volume resize window.

- Fixed a bug that could cause the SoftRAID application to fail if a user tried to resize a volume and a disk was spun down.

- Fixed a bug that could cause the resume operation dialog to appear if a user performed a zero disk, verify disk or certify disk twice in a row.

- Fixed a bug in the SoftRAID Tool that prevented volumes from being validated when the validation was started from the command line.

- Fixed a bug that could cause the SoftRAID application to use up all the free space on a disk when adding the disk to a small volume.

New features in version 5.0.7:

- The driver now automatically uses all disks when reading from from mirror (RAID 1) and RAID 1+0 volumes. The "Use all disks for mirror reads" preference has therefore been removed. This improves the read speed for mirror (RAID 1) volumes by up to 56% on HDDs and up to 86% on SSDs. This also improves the read speed for RAID 1+0 volumes by up to 56% on HDDs and up to 67% on SSDs.

- The write speed of RAID 1+0 volumes which contain SSDs has been improved by up to 11%.

- The write speed of stripe (RAID 0) volumes has been improved by up to 13%.

- Volume validate and rebuild operations now proceed uninterrupted for the first 15 seconds to give feedback to the user that they the operations have started. After 15 seconds, they revert to being regulated by the volume optimization setting.

- The cache flush code in the SoftRAID driver is changed so that writes to disks are always made in sequential order. Previous builds of the driver would issue out of order writes to disks in response to cache flush operations. This significantly speeds up cache flushes to HDDs (disks with rotating media).

- SoftRAID can now detect all SSDs even if they are not on SATA buses.

- The SoftRAID application now displays any SMART errors, predicted failures or i/o errors in small disk tiles. These tiles are used when a user is creating a volume or adding / removing a disk from a volume.

- SoftRAID now writes the disk label and disk SoftRAID ID or disk serial number into all entries in the SoftRAID.log file.

- The SoftRAID application now writes entries to the SoftRAID.log file to indicate which disk is added to or removed from a volume.

Bugs fixed in version 5.0.7:

- Fixed a bug in the SoftRAID application which could cause the position of disk tiles to change every second. This would happen when using a hardware RAID box which created multiple LUNs in the same device and reported all devices as "LUN 0."

- Fixed a bug in the SoftRAID application which caused volume tiles to not be in the correct order after creating a new volume.

- Fixed a bug in the SoftRAID driver which caused writes to a volume to fail when using the repair functions in DiskWarrior and DriveGenius.

- Fixed a bug in the SoftRAID application which prevented volumes from being mounted or unmounted if they were rebuilding or validating.

- Fixed a bug in the SoftRAID driver which prevented volumes from remounting after they were converted to read-only volumes.

- Fixed a bug in the SoftRAID application which prevented some SoftRAID volumes from being resized.

- Fixed a bug in the SoftRAID application which caused mirror volumes to display "missing secondary disks" after a disk was removed from them.

- Fixed a bug in the SoftRAID application which caused the incorrect disk in a RAID 4 volume to be labelled the parity disk.

- Fixed a bug in the SoftRAID driver which could cause data corruption when small blocks were written to a degraded RAID 4 volume.

- Fixed a bug in the SoftRAID application which prevented the sizes displayed in volume tiles from updating correctly if the application preference which determines how many bytes are in 1 KB was changed (1,024 bytes vs 1,000 bytes).

- Fixed a bug in the SoftRAID driver which affected volume permissions.

- Fixed a bug in the SoftRAID application which caused it to not allow a user to resume certifying or verifying a disk if a Mac was restarted or shutdown while the operations were in progress.

- Fixed a bug which caused the incorrect dialog box to appear when deleting a volume which contained open files.

- Fixed a bug which caused the application to hang if a disk was removed while the SoftRAID application was blinking the disk light.

- Fixed a bug in the SoftRAID driver which caused a kernel panic if there was a stripe volume with one or more disks missing and the user selected "Remove Missing Disks" from the "Volume" menu in the SoftRAID application.

New features in version 5.0.6:

- The SoftRAID application now sorts the disk and volume tiles. All SoftRAID disks and volumes are now displayed at the top. SoftRAID disks which contain labels are displayed alphabetically above those which do not contain labels.

- The SoftRAID application now displays additional information about disks which are predicted to fail. This makes it easier to determine the problems a disk has encountered.

Bugs fixed in version 5.0.6:

- Fixed a bug in the SoftRAID driver which could cause data corruption in RAID 1, 4, 5 or 1+0 volumes. This bug would corrupt data during a volume rebuild and could result in incorrect volume data on RAID 4 or 5 disks and on RAID 1 and 1+0 secondary disks.

- Fixed a bug which caused the SoftRAID application to display an incorrect value for the maximum size a volume could be resized to. The old application could calculate the maximum size for a volumes using space on the disks which could not actually be added to the volume. This version only uses space on the disks which can be added to the volume.

- Fixed a bug in the SoftRAID application which caused disk labels to be erased when a SoftRAID disk was initialized.

- Fixed a bug in the SoftRAID application which affected Tech Support Reports.

New features in version 5.0.5:

- The SoftRAID driver now logs any illegal requests it receives for SoftRAID volumes. Log entries are written to the softraid.log file. This logging was added to help investigate bugs in other applications.

- Added code to detect modification of the SoftRAID application and driver. Users who run MacKeeper were unable to mount SoftRAID volumes when running Yosemite, Mac OS X 10.10. This was the result of MacKeeper modifying the code in the SoftRAID application and driver. This version of SoftRAID detects these modifications and tells the user to download a new copy of SoftRAID.

Bugs fixed in version 5.0.5:

- Fixed a bug in the SoftRAID driver which resulted in RAID 4 and RAID 5 volumes which could not be rebuilt or verified. This happened when more than 1 disk was physically disconnected from a mounted RAID 4 or RAID 5 volume.

- Fixed a bug in the SoftRAID Tool which prevented the disk i/o and error counters from being updated correctly. This bug caused disk tiles to always display "0" for i/o and error counters for all SoftRAID disks. This bug was introduced in version 5.0.4.

- Fixed a bug in the SoftRAID application which caused a window to display the incorrect number of primary disks required when creating a RAID 1+0 volume.

- Fixed a bug in the SoftRAID application which caused disks for RAID 1+0 volumes to indicate that they were part of a nonexistent mirror pair. This bug would occur if you clicked on the volume tile of a newly created RAID 1+0 volume.

- Fixed a bug in the SoftRAID application which caused the incorrect message to be displayed if a user attempted to certify or verify a disk which was mounted and contained open files.

- Fixed a bug in the SoftRAID application which caused the volume tiles to disappear when a disk initialize, zero, verify or certify operation failed to start. This would occur when the disk contained a volume which was mounted and contained open files.

- The volume tiles in the SoftRAID application now display more accurate information about CoreStorage volumes.

- Fixed a bug which caused SoftRAID to say that the application had to replace a previous version of the driver because it was incompatible. This would only happen when running Mac OS X 10.6.8.

- Fixed a bug in the SoftRAID application which prevented email notification from working with some email addresses which contained a period ('.') character, e.g.: steve.jobs@gmail.com.

- Fixed a bug in the SoftRAID application which caused it to indicate that a restart was required after installing the driver when no restart was required.

Bugs fixed in version 5.0.4:

- Fixed a bug in the SoftRAID driver which caused a kernel panic when validating a RAID 1 volume and with "Validating updates mismatched mirror blocks" disabled or when validating a RAID 4, 5 or 1+0 volume with"Validating updates incorrect RAID blocks" disabled.

- Fixed a bug in the SoftRAID Monitor which caused the status indicator to disappear when a disk was removed when running under Yosemite (Mac OS X 10.10).

- Fixed a bug in the SoftRAID Monitor which caused SoftRAID to notify a user only once that a new version of SoftRAID was available.

- Fixed a bug in the SoftRAID application which could prevent the Mac from restarting or shutting down if the SoftRAID application was running.

- Fixed several bugs in the SoftRAID Monitor which caused incorrect dialogs to be displayed when using German as the language for Mac OS X. These bugs affect dialog boxes which appeared at the start and end of a volume rebuild.

- Fixed a bug which prevented users from starting rebuilds on the command line.

- Fixed a bug in the SoftRAID application which caused the incorrect volume icons to be used when running SoftRAID under Yosemite (Mac OS X 10.10).

- Fixed a bug in the SoftRAID application which allowed the user to shutdown or restart their Mac when a certify disk, zero disk or verify disk operation was in progress. The application now always displays a confirmation dialog when shutting down or restarting if a disk operation is in progress.

- Fixed a bug in the SoftRAID driver which could cause a volume to fail to resume rebuilding if a rebuilding disk was removed and then reattached.
- Fixed a bug in the SoftRAID application which prevented users from using iCloud email address in the form username@mac.com or username@icloud.com.
- Fixed a bug in the SoftRAID application which caused the about box to always indicate that the serial number was invalid.
- Fixed a bug in SoftRAID which caused the 30 day evaluation period to expire after running a beta release.
- Fixed a bug which caused the SoftRAID Monitor to crash every time it started to display a dialog. This bug only occurred in Yosemite (Mac OS X 10.10).
- Fixed a bug in the SoftRAID driver which caused a kernel panic when creating volumes. The kernel panic only occurred when running Mac OS X 10.6 or 10.7 and creating a volume using all of the SoftRAID initialized disks attached to the Mac.
- Fixed a bug in the SoftRAID application which caused caused a crash when making volumes on disks which were less than 138 MB in size.
- Fixed a bug in the SoftRAID driver caused a kernel panic when large writes were performed on a RAID 4 or RAID 5 volume which used SATA disks connected via a USB 3 adapter.
- Fixed a bug which caused the about box in the ThunderBay Installer to fail to appear.