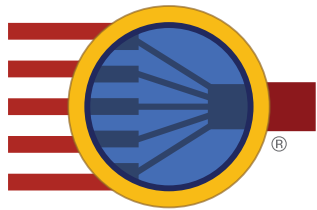




SoftRAID XT
Manual & User Guide



SoftRAID®
an OWC brand

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SoftRAID XT is a RAID application built for high-performance enclosure. If you purchased a solution that includes drives, they have been pre-configured to work with this application. If you are using your own drives, you need to initialize them and create one or more RAID volumes. For optimal performance, SoftRAID XT should be installed on the host computer. Note: Currently, SoftRAID XT is a Mac only application but a Windows version is in development.

1.1 SoftRAID XT Requirements

Hardware

- OWC ThunderBay series
- OWC Mercury Elite Pro Quad
- OWC ThunderBlade
- OWC Express 4M2
- Any Mac with a data port that is compatible with the chosen OWC enclosure(s)

Operating System

- OS X 10.10.5–10.11.6
- macOS 10.12 or later
- Note: the hardware solutions listed above may have different OS requirements

1.2 Features

- RAID levels supported: 0, 1, 4, 5, and 1+0 (10)
- Certify disks – writes a pattern to each sector on the disk and then reads it back to ensure that the drive is functioning as designed.
- Verify disks – reads every sector on the disk to ensure it can be read without errors.
- Validate volumes – reads every volume block to ensure it can be read without errors.
- S.M.A.R.T. monitoring of all connected drives, including early warning of disk failure.
- Custom email alerts for important disk events.

1.3 About This Manual

The features and user interface shown may vary slightly between this document and the software version purchased. Drivers and functionality may change depending on the software version.

Note: to Install SoftRAID XT, double-click the drive icon and drag the SoftRAID folder onto the Applications folder shortcut. Then launch SoftRAID, update the driver if prompted, and use the SoftRAID key that shipped with your OWC storage solution to activate the SoftRAID application. Depending on the solution purchased, the license key will be either on the bottom of the enclosure or behind the locked faceplate.

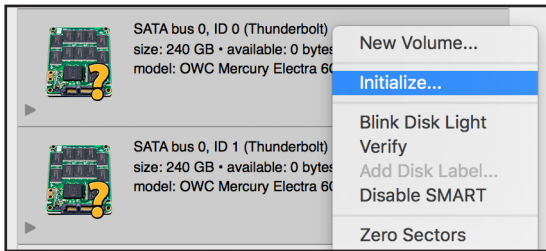
2.1 Initializing, Verifying, and Certifying Disks

If you are using your own disks, you need to initialize them in SoftRAID before they can be used. If you are using a device that has already been configured in SoftRAID XT, proceed to Section 2.4.

Initializing Disks

When using your own disks, please follow these steps to initialize the disks.

1. Launch SoftRAID XT. In the main window select all disks that need to be initialized (Shift-click to select multiple disks).
2. Right-click on one of the selected disks, then select the Initialize option.



3. When prompted, confirm that you wish to initialize the disks. Initializing a disk will destroy all data on the disks; before proceeding make sure your data is backed up!

Verifying and Certifying Disks

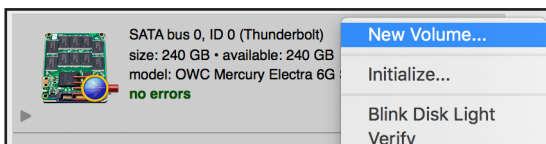
SoftRAID XT has two features that can test a disk to confirm that it is healthy: Verify and Certify. Both features can be accessed by right-clicking the disk that you wish to scan.

- Verify reads each disk sector to determine if any of them are unreadable.
- Certify writes a pattern of data to each sector of the disk and then reads the sector to make sure the pattern has not changed. Note: 'Certify' is a destructive process, so before proceeding make sure there is no important data on the disk. Note also that. Both 'Verify' and 'Certify' can take multiple hours to complete.

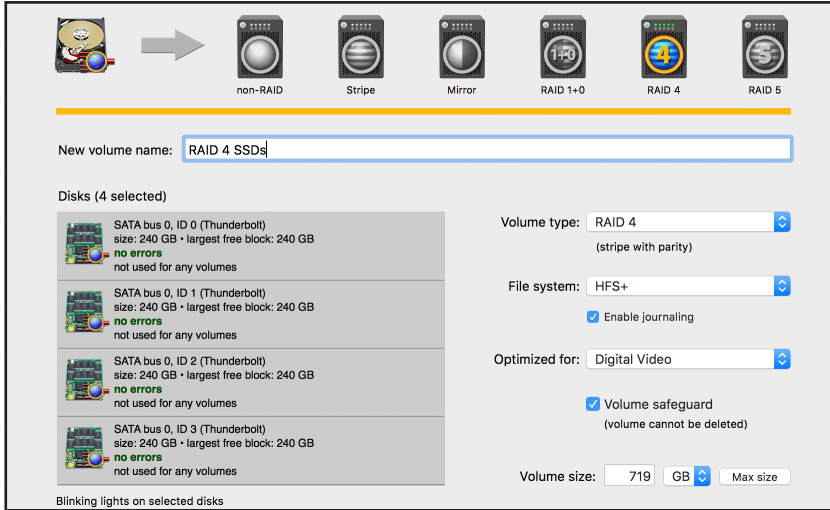
2.2 Creating a Volume

To create a new volume in SoftRAID XT, follow these steps:

1. Select the disks that you want to be members of the new volume, then right-click on one of the disks to open the 'Disk' menu. Select New Volume.



- The New Volume screen appears and the LEDs for the selected disks will blink on the enclosure. **IMPORTANT:** the listing of disks in SoftRAID XT does not necessarily reflect the order of disks inside the device. Give the new volume a name then select the Volume Type, File System type, Optimization settings, Volume Safeguard and Volume size. When ready, click the Create button. **NOTE:** for RAID 0 verify the 'Stripe Unit Size' – use the suggested value for your optimization type and Click OK.



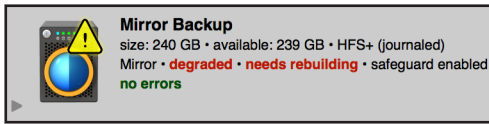
2.3 Configuring Email Notifications

SoftRAID has the ability to send email notifications when specified events occur. To configure email notifications, follow these steps:

- From the main menu click 'SoftRAID' then choose 'Email Notification...'
- In the 'Sender Info' tab, enter the full name and email address that you want to use when SoftRAID sends out email notifications. Note that this information does not need to match a real email address. It can be anything you like, and is simply there to identify the email as being sent by SoftRAID.
- In the 'Outgoing Server' tab, enter the information for the server, user name, and password that will be used to send the email messages. The 'Configure For' drop-down menu will help fill in the server information for common email services like Gmail. There is an option to configure an alternate SMTP server as a backup, but it is not necessary.
- The next two tabs, 'Notifying Events' and 'Alarms', contain checkboxes that allow you to customize what will cause SoftRAID to send out an email notification. 'Notifying Events' contains hardware problems such as disk I/O errors. 'Alarms' lets you set optional thresholds for things like a disk becoming too full or abnormally high CPU load.
- The last tab, 'Recipients', lets you set one or more destination addresses.

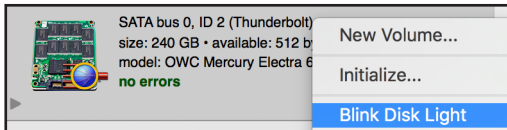
2.4 Disk Failure, Replacement, and RAID Rebuild

When there are problems with a disk, the RAID volume displays a degraded state.

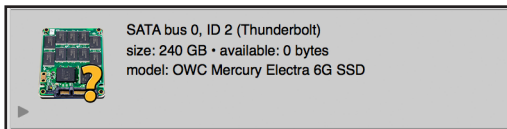


To replace a failed disk and rebuild the RAID volume, follow these steps:

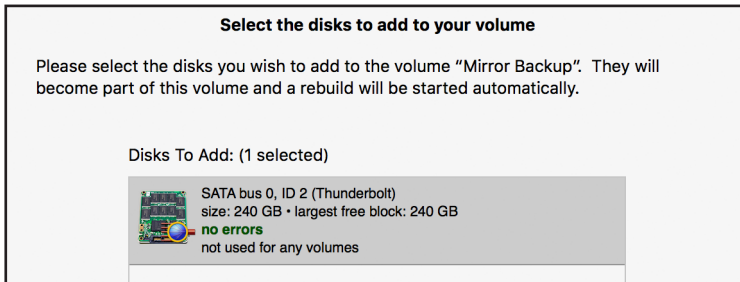
1. Identify the disk by right-clicking its tile, then select 'Blink Disk Light' (shown below). Look at the front of the device and remove the disk with the blinking light.



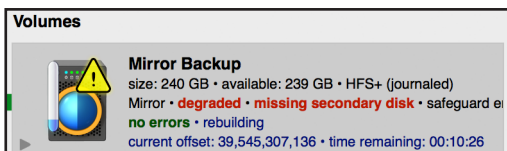
2. Remove the failed disk (not applicable to ThunderBlade V4) then replace it according to the instructions in the Assembly Manual & User Guide. When a new disk is inserted, Disk Utility will ask you what to do with the new disk. Click Ignore and return to SoftRAID XT.
3. If the disk is brand new it will show up in SoftRAID XT with a question mark icon (see below). If the disk has already been formatted in Disk Utility it will appear with an Apple icon. A new disk needs to be initialized in SoftRAID XT before it can be added to the RAID volume (see Section 2.3.1).



4. Once the new disk is initialized, right-click on the degraded RAID volume and select Add Disk. A new dialog will appear; click on the new disk to select it then click Add. Click Add a second time to confirm the selection and begin the rebuild.



5. The rebuild process will begin automatically as soon as you confirm the addition of the new disk to the RAID volume. Note that the disk tile shows the predicted time remaining to rebuild the volume, as well as a progress meter on the volume icon.



- You can use the RAID volume during the rebuild process. Make sure the computer is not powered off or put into sleep mode, and keep the OWC storage solution turned on and connected to the computer during this process, or the rebuild will be interrupted.

3.1 Troubleshooting

Storage Device

Start by verifying that the power cable is connected to your OWC storage solution and to a power source. If the power cable is connected to a power strip, make sure that the power switch on the strip is turned on. Then, verify that both ends of the data cable are properly plugged into the computer and the storage device. If the device is still not working properly, try connecting to another computer or using another data cable.

Important: the ThunderBay series of storage solutions require an active data signal to remain in a powered on state. If it is disconnected from the computer, or if the computer powers down or goes into sleep mode, the ThunderBay will go to sleep.

SoftRAID

First make sure that you are using the latest version of SoftRAID. With the application running, go to the 'SoftRAID' menu and select 'Check For Updates...' If a new version of SoftRAID is available, you will be prompted to download it. For more information on SoftRAID, please review the help files accessible via the SoftRAID 'Help' menu.

3.3 About Data Backup

To ensure that your files are protected and to prevent data loss, we strongly suggest that you keep two copies of your data: one copy on your OWC storage solution, and a second copy on either your internal drive or another storage medium, such as an optical backup, or on another external storage unit. Any data loss or corruption while using the OWC storage solution with SoftRAID is the sole responsibility of the user, and under no circumstances may OWC, its parent, partners, affiliates, officers, employees, or agents be held liable for loss of the use of data including compensation of any kind or recovery of the data.

3.5 Contacting Technical Support



Phone: M–F, 8am–8pm CT
1.866.692.7100 (N. America) +1.815.338.4751 (Int'l)



Chat: Chat: M–F, 8am–8pm, Sat. 9am–5pm CT
www.owcdigital.com/support



Email: Answered within 48 hours
www.owcdigital.com/support

Changes:

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