CHAPTER 9

Power Settings

When you click the **Power Settings** button in the navigation pane, you are taken to the AutoMAID Statistics page. The navigation bar across the top contains links to this section's subpages.

- **AutoMAID Statistics** links to AutoMAID Statistics
- **AutoMAID Config** links to Configure AutoMAID Settings

AutoMAID Statistics

Clicking **Power Settings** takes you to the AutoMAID Statistics page, which shows you details about the disk drives' AutoMAID power savings. For more information about AutoMAID, see Appendix B, "AutoMAID".

The AutoMAID Statistics page reports power savings over the past 96 hours. The exact reporting period is shown above the **Clear Statistics** button. The statistics listed are:

- **Array name**: The name of each array in the unit, plus a row for unused and spare disks. There is also a **Total** line that summarizes statistics across all disk drives.

  Note This list can include names of arrays that no longer exist, but did exist at any time during the reporting period.

- **Disk Time at MAID Level**: The percentage of time during the reporting period that the drives in each array or category have been at the specified AutoMAID level:
  - **Active**: The percentage of time that the drives have been active and at full power.
  - **Idle**: The percentage of time that the drives' read/write heads have been parked (AutoMAID level 1).
  - **Slow**: The percentage of time that the drives' disk platters have been spun down to a slower speed (AutoMAID level 2).
  - **Stopped**: The percentage of time that the drives' disk platters have been spun down completely (AutoMAID level 3).
  - **Off**: The percentage of time that the drives' electronics have been completely powered down (AutoMAID level 4).

  Note Not all disk drives support AutoMAID levels 1, 2, or 4.

- **AutoMAID Efficiency**: Displays the percentage of maximum efficiency that the drives in each array or category have achieved. If all drives were Off for the entire reporting period, this number is 100%.

Note NOTE: An AutoMAID Efficiency percentage of 100% does NOT mean that no energy is being used, just that the maximum efficiency level has been achieved.

You can clear the statistics for the reporting period by clicking the **Clear Statistics** button. The AutoMAID statistics for the past 96 hours are cleared, and new statistics are recorded beginning immediately.

Configure AutoMAID Settings

Clicking **Power Settings > AutoMAID Config** takes you to the Configure AutoMAID Settings page, which allows you to specify when disk drives should enter each AutoMAID level. It also lets you specify times and days of the week when AutoMAID is disabled in order to maximize data accessibility. For more information about AutoMAID, see Appendix B, "AutoMAID".

There are three sections: Default RAID Array AutoMAID Settings, Default Pool Spares/Unassigned AutoMAID Settings, and RAID Array Specific Settings.

Default RAID Array AutoMAID Settings controls the default AutoMAID settings for all disk drives assigned as array members or dedicated array spares. There is one row for each AutoMAID level, and each row has four columns:

- **Power Level**: Displays each AutoMAID level: Level 1 (parked heads), Level 2 (slow disk rotation), Level 3 (stopped disk rotation), and Level 4 (drives powered off).
- **Current Setting**: Displays the amount of time that the system is currently set to wait before activating that AutoMAID level.
- **New Setting**: Displays drop-down lists with the possible settings for each AutoMAID level:
  - Level 1: **never** (the default), **2 mins**, or **5 mins**.
  - Level 2: **never** (the default), **10 mins**, **20 mins**, **30 mins**, **40 mins**, **50 mins**, or **60 mins**.
  - Level 3: **never** (the default), **15 mins**, **30 mins**, **1 hr**, **1.5 hrs**, or **2 hrs**.
  - Level 4: **never** (the default), **20 mins**, **30 mins**, **1 hr**, **1.5 hrs**, or **2 hrs**.

Note Any AutoMAID levels set to **never** will be ignored by the system.

Note If any drives are set to use AutoMAID Level 3 or 4, host timeout values (set for the host HBA either through the HBA BIOS or a management application) should be set to a default of between 120 and 150 seconds to avoid the host requests timing out before the disk drives can power on and spin up to full speed.

- **Supported by**: Displays the number of disk drives out of the total that support each AutoMAID level.

Note Disk drives that do not support a specific AutoMAID level will stay at a previous, usable level until the system reaches an AutoMAID level that drive supports.

AUTOMaid can be scheduled using the following settings:

- **AutoMAID Schedule**: Check the check box to disable AutoMAID during critical hours when high data accessibility is required.
- **Critical hours**: Use this section to schedule the critical hours during which AutoMAID will be disabled. Use the drop-down lists to select the beginning and ending time, and use the check boxes to select specific days of the week.

Default Pool Spares/Unassigned AutoMAID Settings controls the AutoMAID settings for all pool spare (but not dedicated spare) disks and all disks that are currently unassigned as either spares or array members.

- **Pool Spares/Unassigned**: Use the drop-down list to select the AutoMAID level you wish pool spares and unassigned disks to go to:
  - **Never** (the default)
  - **Level 1 — Park heads after 2 minutes**
  - **Level 2 — Reduce disk speed after 10 minutes**
  - **Level 3 — Stop disks spinning after 15 minutes**
  - **Level 4 — Power off disks after 20 minutes**

After you have made your selections in both the Default RAID Array AutoMAID Settings section and the Default Pool Spares/Unassigned AutoMAID Settings section, click the **Save Settings** button. A message is displayed, informing you that the settings have been changed. Click the **Back** button to return to the Configure AutoMAID Settings page.

In the RAID Array Specific Settings section, the default setting is **Default**. Click the **Customize** link to set AutoMAID settings for an individual array. Choose the settings in this section exactly as you would in the Default RAID Array AutoMAID Settings section, then click **Save Current Settings**. A message is displayed, informing you that the new power settings have been saved.

If you wish to return an array to default settings, click **Reset Default Settings**. A message is displayed, informing you that the new power settings have been saved.