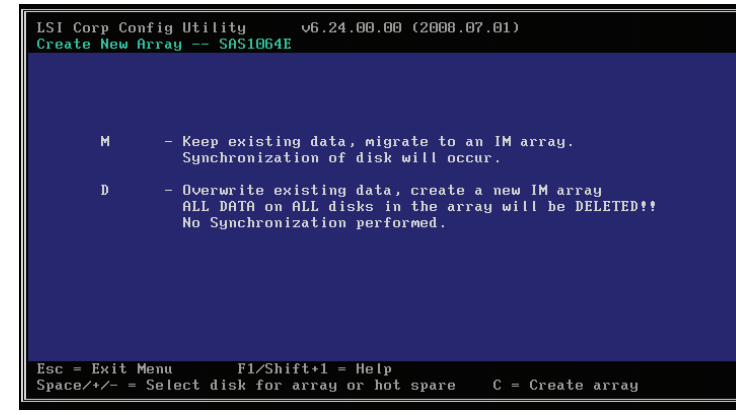


4 (Cont.) Use the LSI* MPT SAS BIOS Configuration Utility* to Create a RAID Virtual Drive

5 In the RAID Disk column highlight **No** and press **<Space>**.



6 Press **<M>** to keep existing data, or press **<D>** to overwrite existing data.



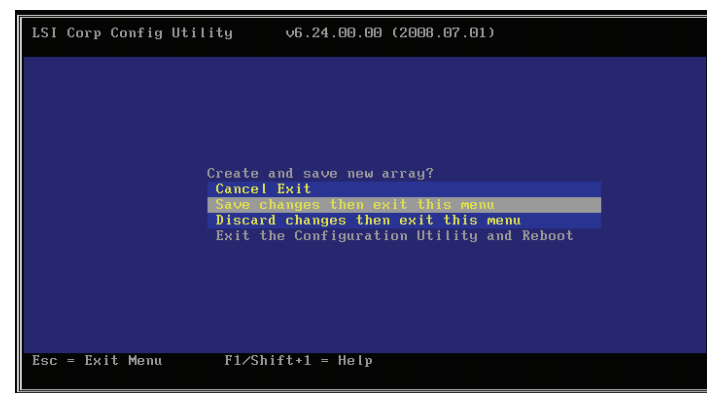
7 In the RAID Disk column highlight **No** and press **<Space>**.



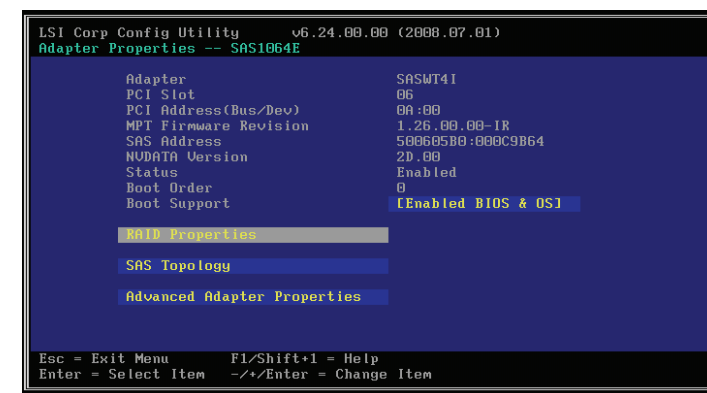
8 When the RAID Disk status is listed as shown below, press **<C>** to create an array.



9 Select **Save changes then exit this menu**, then press **<Enter>**.



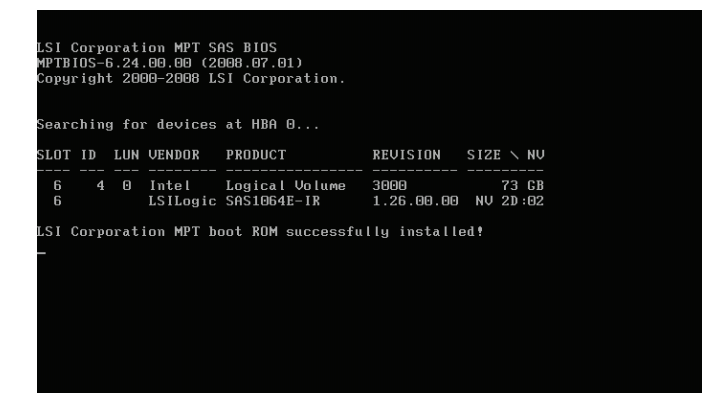
10 After the RAID array is created, the following screen will appear. Press **<Esc>** to return to the main menu.



11 Choose **Exit the Configuration Utility and Reboot** and press **<Enter>** to reboot the system.



12 During system reboot, verify that Logical Volume is displayed in the Product column.



Creation of a RAID volume is now complete.

5 Install the Operating System Drivers

Note: Below section lists the general driver loading process for frequently used operating systems. For more details, and for other supported operating systems, refer to the corresponding driver release notes to get latest information.

Microsoft Windows 2003*

OR

Microsoft Windows 2008*

OR

Red Hat* Enterprise Linux

OR

SuSE* Linux Enterprise Server

- 1 Create installation media (floppy disk required for Microsoft Windows 2003*; removable media, such as a floppy disk, USB device, or CD/DVD-ROM, required for Microsoft Windows 2008*). See the instructions at the right.
- 2 Boot the server and start the OS installation.
- 3 Press the **<F6>** key as soon as the first screen appears.
When you see: "Where do you want to install windows?", select **Load Driver**, and then click Next.
When prompted by the Load Driver dialog:
a. Insert the removable installation media that you created in step 1 above.
b. Press the **<Enter>** key to select the "Installation Driver" and continue with the Windows* installation.
- 4 When prompted to specify a mass storage controller:
a. Press **<S>** to specify additional storage devices.
b. Insert the installation driver disk that you created in step 1 above.
c. Press the **<Enter>** key to select the "Installation Driver" and continue with the Windows* installation.
- 5 Follow the on-screen instructions to complete the Windows installation.

- 1 Create installation media (removable media, such as a floppy disk, USB device, or CD/DVD-ROM, required). See the instructions at the right.
- 2 Boot the system with Red Hat* Enterprise Linux CD-ROM.
Boot the system with SuSE* Linux Enterprise Server (SLES) CD-ROM.
- 3 At the boot prompt, insert the Linux* installation disk that you created in step 1.
When the first screen displays, insert the Linux* installation disk that you created in step 1.
Press the **<F6>** key for SLES 11 or the **<F5>** key for SLES 10 to load the driver, and then select an installation menu option.
- 4 Type **linux cd**, and press the **<Enter>** key.
- 5 Follow the on-screen instructions to complete the installation. The RAID controller driver is automatically detected and installed.

To manage a RAID array, install Intel® RAID Web Console 2

Install the Intel® RAID Web Console 2 package from the Resource CD.
Extract the contents of the ZIP file and run Setup.exe from the Disk1 folder.

Install the Intel® RAID Web Console 2 package from the Resource CD.

- Unpack Linux_rwc2_*.tar.gz.
- Remove any line breaks and allow permissions by typing
\$> tr -d '\15\32' < existing_file_name > new_file_name
\$> chmod a+x new_file_name
- Run ./install.sh

Choose one of four installation modes: Complete (installs all features), Client (administrative machine only), Server (can be managed remotely), or StandAlone (only manages itself).

To start Intel® RAID Web Console 2 from within the OS: Choose Start | Programs | RAID WebConsole | RAID WebConsole 2. For additional details, see the *Intel® RAID Software User's Guide*.

Create Installation Media

- 1 Obtain the drivers either from the resource CD or the Intel web site.
- 2 If using the Resource CD, insert the resource CD. Browse to \Drivers and then the matching OS folder.
OR
Go to <http://downloadcenter.intel.com> and locate your product under Server Products in the left menu.

Microsoft Windows*

- 3 Extract the files from the zip file to your hard drive. Copy the appropriate files to a floppy disk (for Microsoft Windows 2003*) or removable media (for Microsoft Windows 2008*).
- Copy the matching .sys, .cat, .oem, and .inf driver files to a floppy disk or removable media.

Linux*

Extract the driver update disk (DUD) image (file extension .img) from the zip file to your hard drive. If you have a system with Microsoft Windows*, you will need a third-party utility such as "rawrite" to extract the DUD image to a floppy disk. For a system under Linux* or Sun Solaris*, use the "dd" command as follows:
dd if=<image_file_name> of=<path-to-media>
'path-to-media' is usually /dev/fd0, but may differ if you are using a USB floppy drive.

Choosing the Right RAID Level

RAID 0 (IS)		Minimum Disks: 2 Read performance: Excellent Write performance: Excellent Fault tolerance: None	Striping of data across multiple drives in an array. This provides high performance, but no data protection.
RAID 1 (IM)		Number of Disks: 2 Read performance: Excellent Write performance: Good Fault tolerance: Excellent	Disk mirroring, meaning that all data on one disk is duplicated on another disk. This is a high availability solution, but only half the total disk space is usable.
RAID 1E (IME)		Minimum Disks: 3 Read performance: Excellent Write performance: Good Fault tolerance: Excellent	Enhanced disk mirroring, meaning that all data on one disk is duplicated on other disks. This is a high availability solution, but only half the total disk space is usable.