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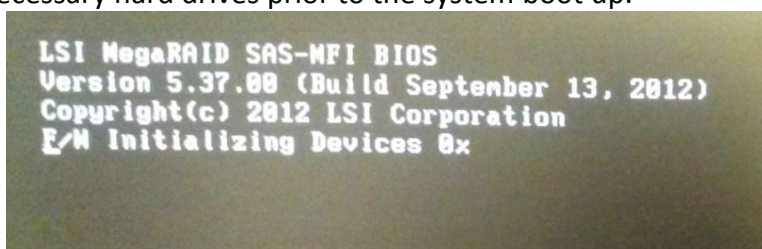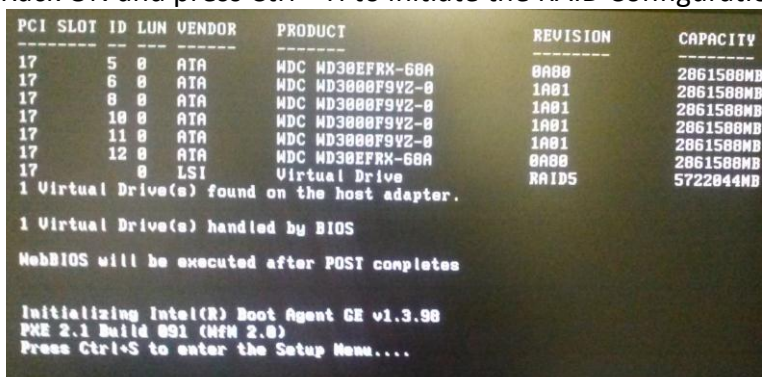
RAID Setup on the Blackjack E-Rack NVRs

Step 1: Setting up RAID with MegaRAID BIOS Configuration Utility
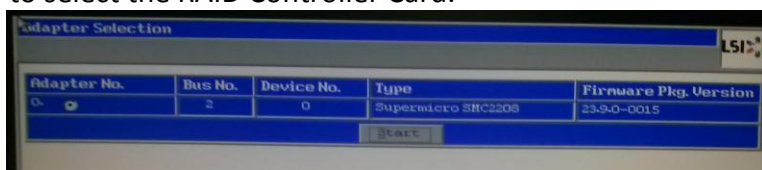
1. Install all necessary hard drives prior to the system boot up.
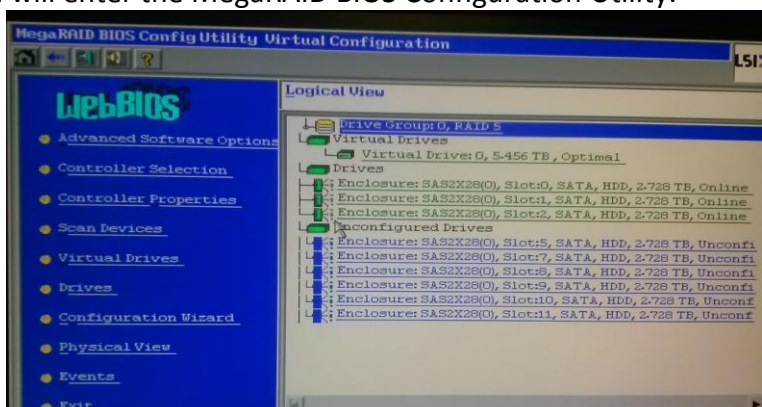

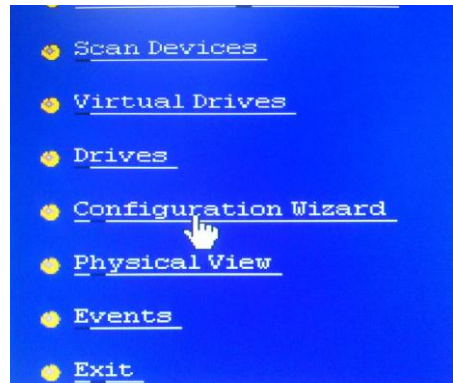2. Turn the E-Rack ON and press Ctrl + H to initiate the RAID Configuration.
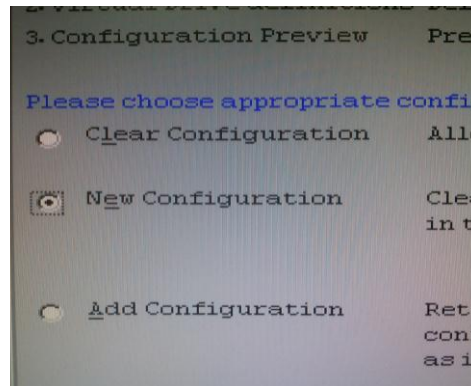

3. Click 'Start' to select the RAID Controller Card.

4. The system will enter the MegaRAID BIOS Configuration Utility.
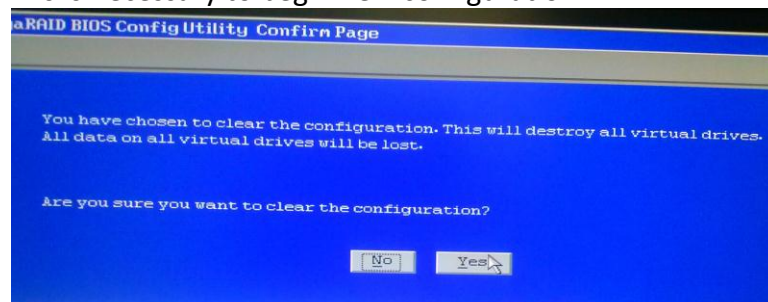
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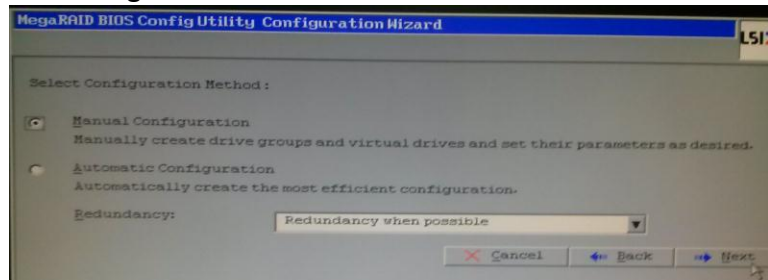
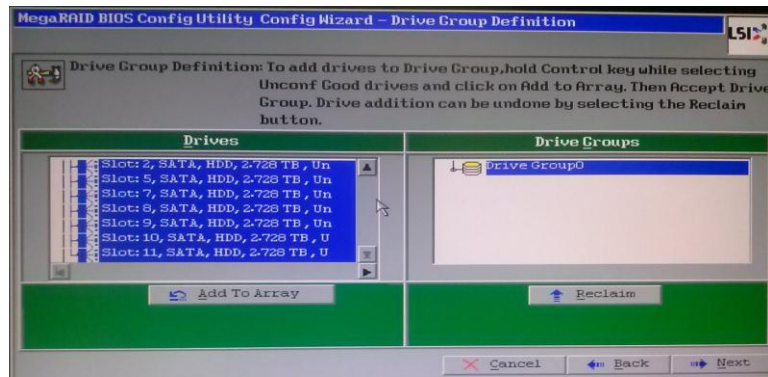5. Click on the 'Configuration Wizard'.

6. Select 'New Configuration'.

7. You will be prompted to a window asking if you want to clear the configuration. Click 'Yes'. This is necessary to begin new configuration.
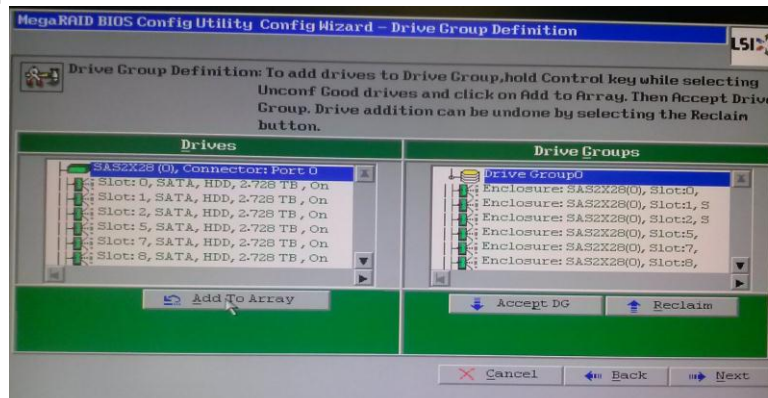
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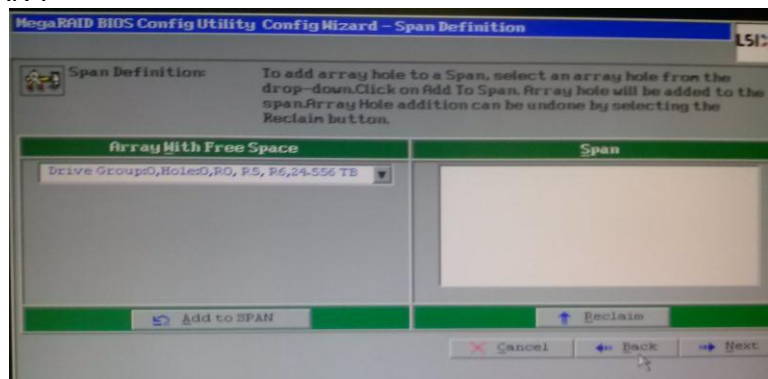8. Select 'Manual Configuration' method.

9. Select all drives under the 'Drives' column on the left side and click 'Add to Array'.
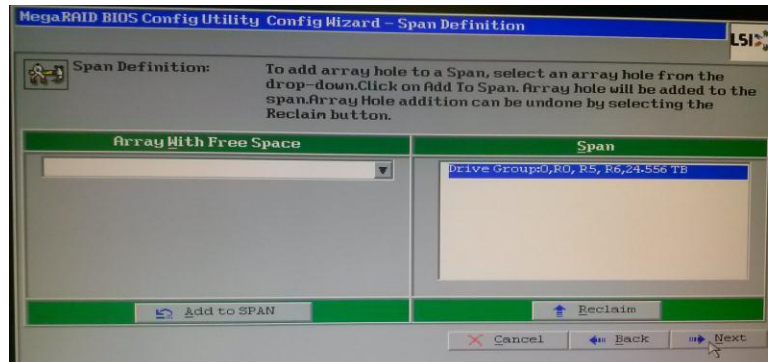

10. Click 'Accept DG' and click 'Next'.

11. In "Span Definition" under 'Array with Free Space', select 'Drive Group:0' and click 'Add to SPAN'.
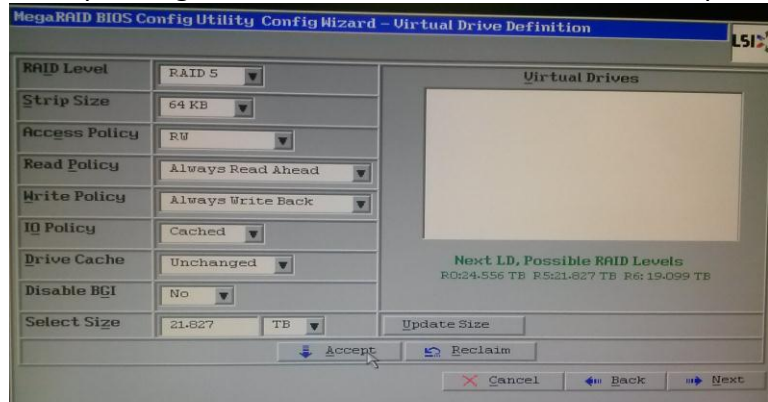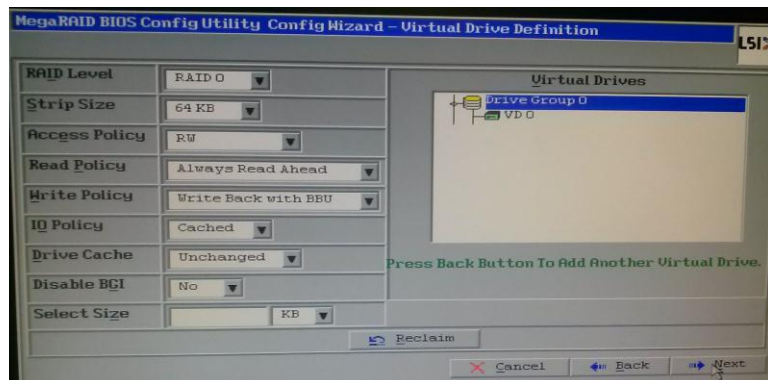
12. Once in 'Span' column click 'Next'.

13. In 'Virtual Drive Definition', select RAID level and preferences (Strip Size, Strip Size, Read/Write Policy, etc.).
14. Select Size corresponding with de-sired RAID level and click 'Accept'.
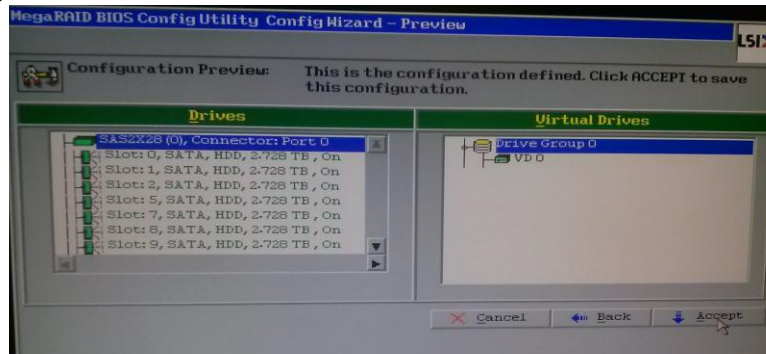

(DW uses: RAID 5, 512KB Strip Size, Read Policy: Always Read Ahead, Write Policy: Always Write Back)

15. The virtual drive will be previewed in the 'Virtual Drives' column. Confirm and click 'Next'.
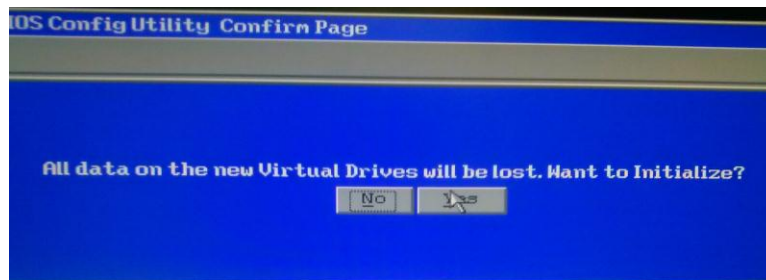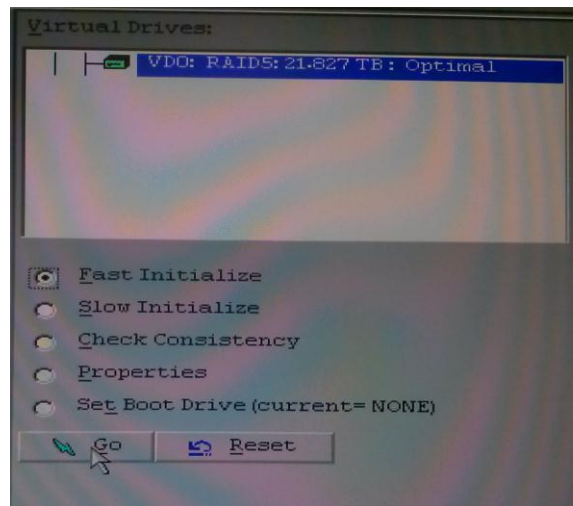

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16. The preview of the virtual drive will be displayed. Click 'Accept' and then 'Yes' to save configuration.
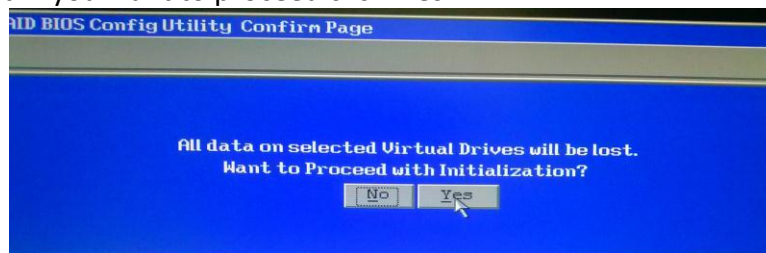

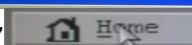
17. Click 'Yes' to initialize.

18. Choose "Fast Initialization" and click 'Go'.
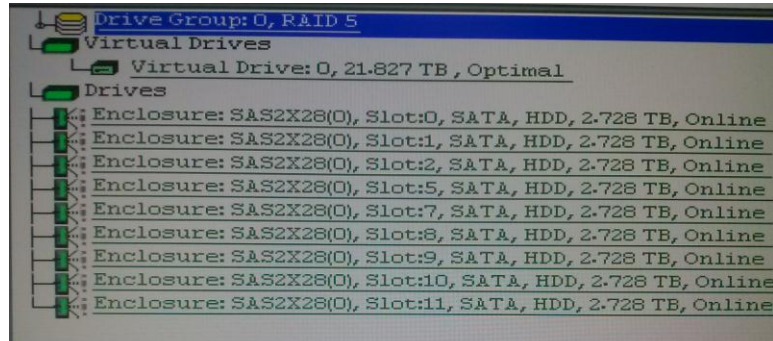

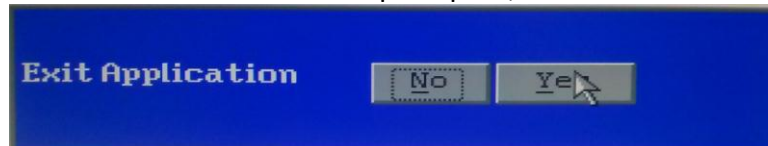19. When asked if you want to proceed click 'Yes'.
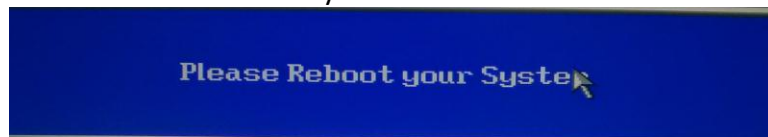

20. Click 'Home'

21. You will be able to view the drive group, RAID level, virtual drivers, and driver.

22. Click 'Exit' on the main menu and when prompted, click 'Yes'.
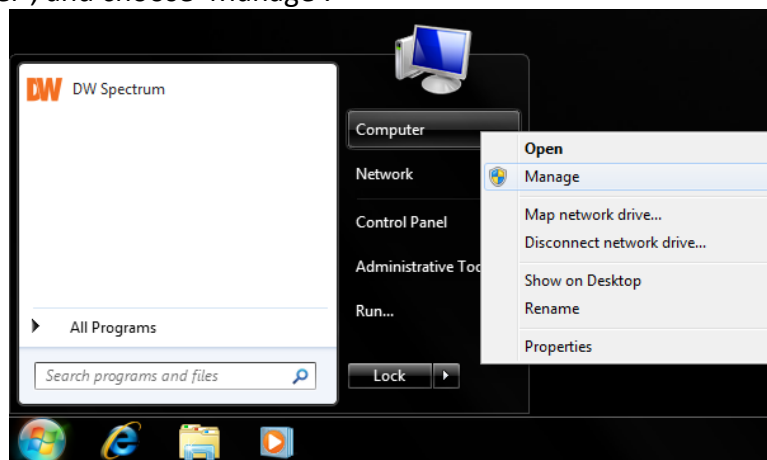

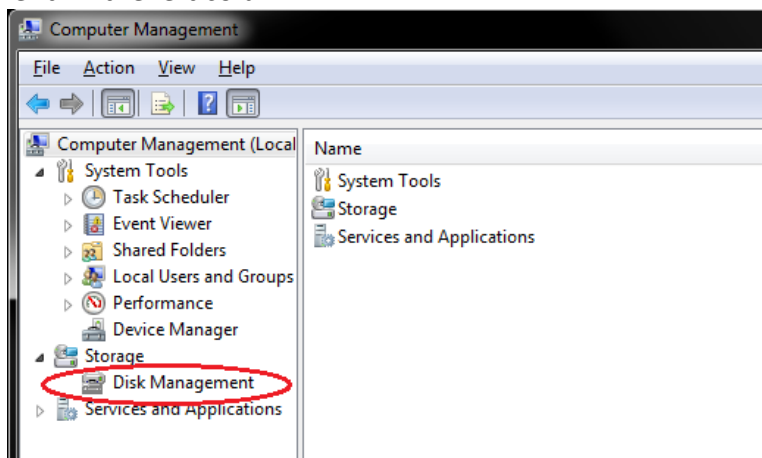23. Press Ctrl + Alt + Del to reboot the system.
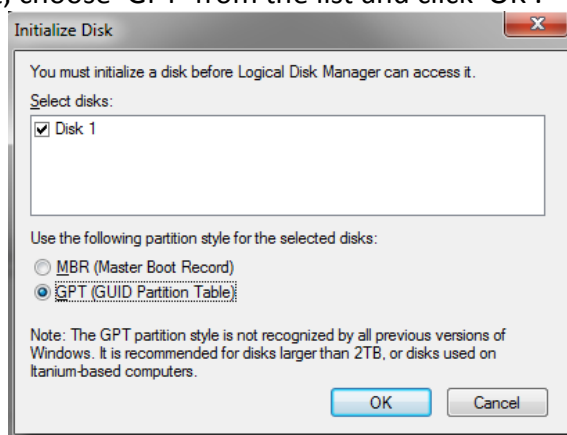

Step 2: Initializing the Virtual Drive in Windows

1. Once RAID is set and you enter Windows click 'Start', then right-click 'Computer', and choose 'Manage'.

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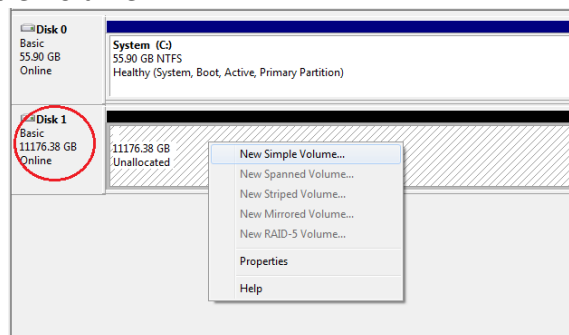
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2. You will be prompted to 'Computer Management' window. Click on 'Disk Management' in the left column.
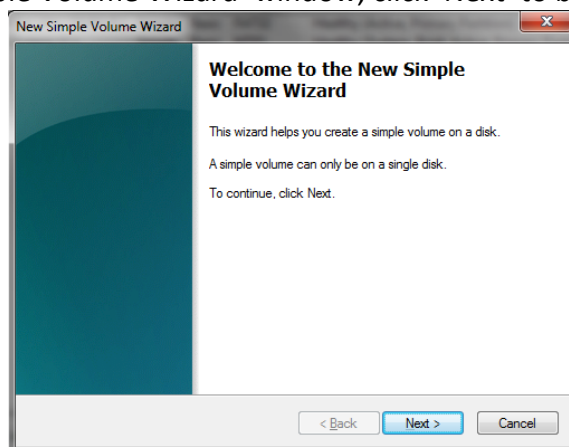
3. A window will pop up to initialize the disk and choose a partition style before you can access it; choose 'GPT' from the list and click 'OK'.
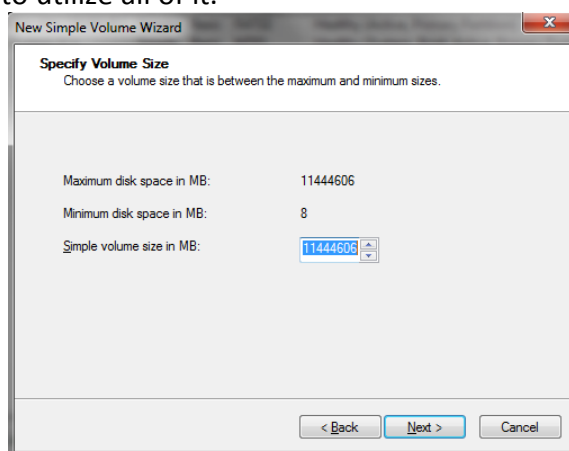
4. Once initialized, you will see the partition of the disks. The color-code system will appear in black since the partitions are not allocated. Right-click on it and chose 'New Simple Volume'.
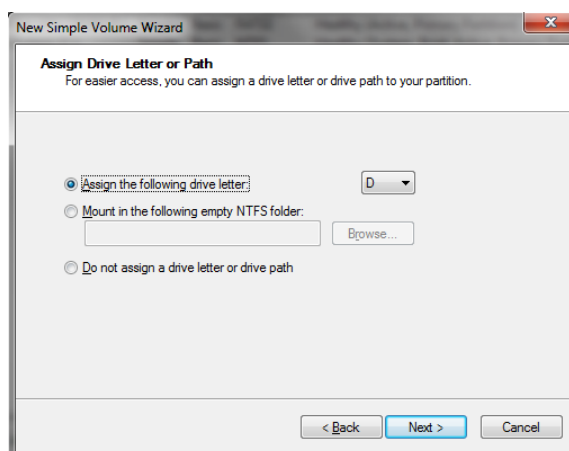
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5. In the 'New Simple Volume Wizard' window, click 'Next' to begin.

6. You will be prompted to select New Simple Volume Size in MB; leave default volume in order to utilize all of it.
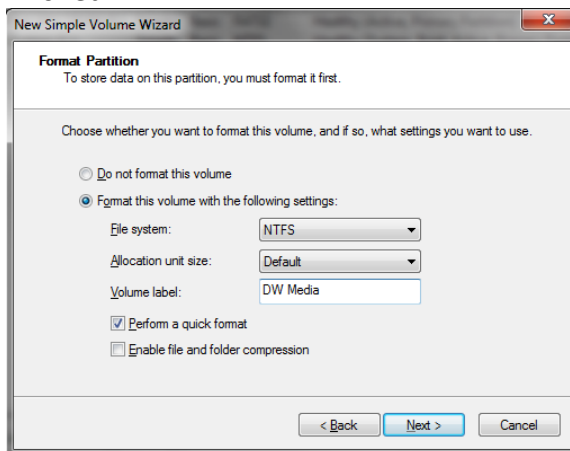

7. Assign drive letter. 'D' should be available if no additional USB storage devices are inserted.

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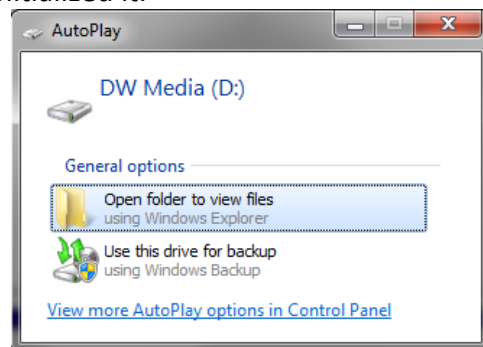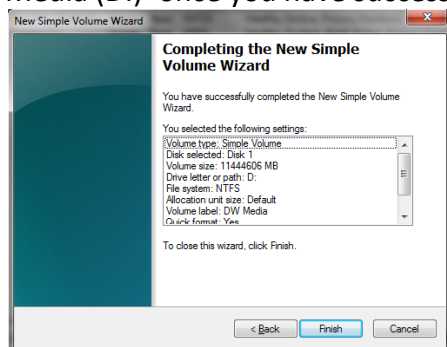
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8. Under 'Format Partition' section leave all default settings, only change Volume Label to 'DW Media' then click 'Next'. A quick format will be performed once finished.

9. Click finish to complete process. Windows will the detect the drive as 'DW Media (D:)' once you have successfully initialized it.

10. Now that the virtual disk you created in the MegaRAID BIOS Configurator has been initialized in Windows, you can access it.