# Marvell SATA3 RAID Installation Guide

Overview

The Marvell RAID Utility (MRU) is a browser-based graphical user interface (GUI) tool for the Marvell RAID adapter. It supports IO Controllers (IOC) and RAID-On-Chip (ROC) Controllers. RAID technology allows you to create arrays and virtual disks using one or more physical disk drives in combination in order to achieve increased disk fault tolerance and improved performance.

The Marvell RAID adapter supports the following RAID levels:

• **RAID 0** (striping). Multiple drives can read and write data in parallel to increase performance.

• **RAID 1** (disk mirroring). Two disks mirrored to each other.
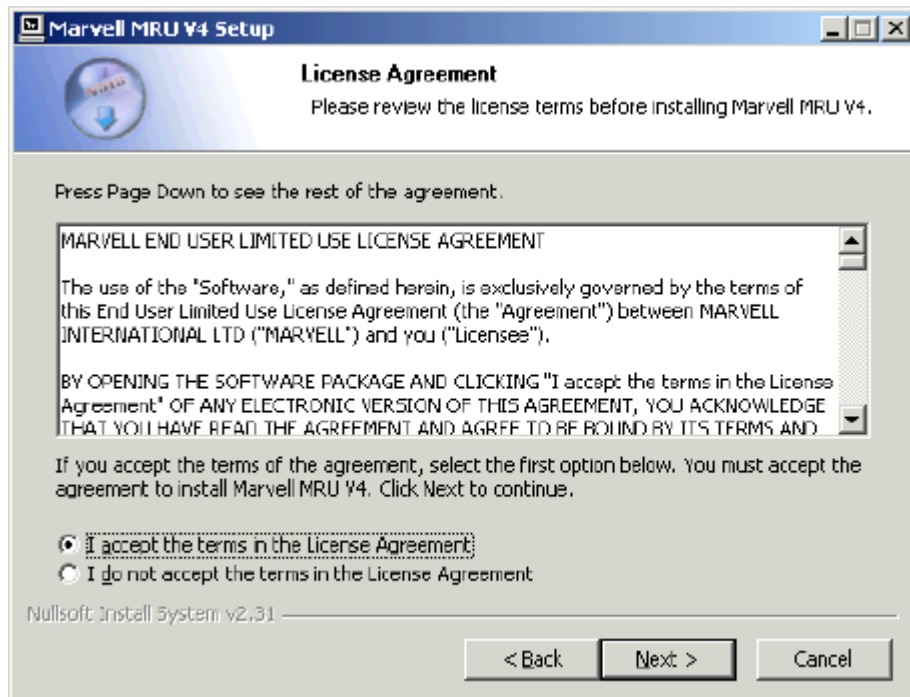
Installation

Insert ASRock support CD to the optical drive. Click "Install all" or "Marvell SATA3 Driver". The system will start to auto-install Marvell SATA3 driver.
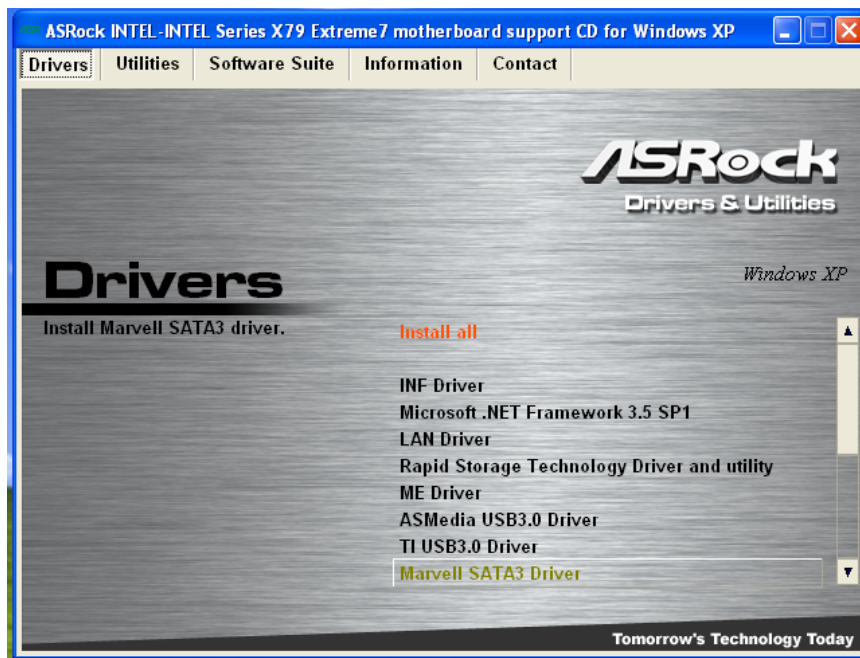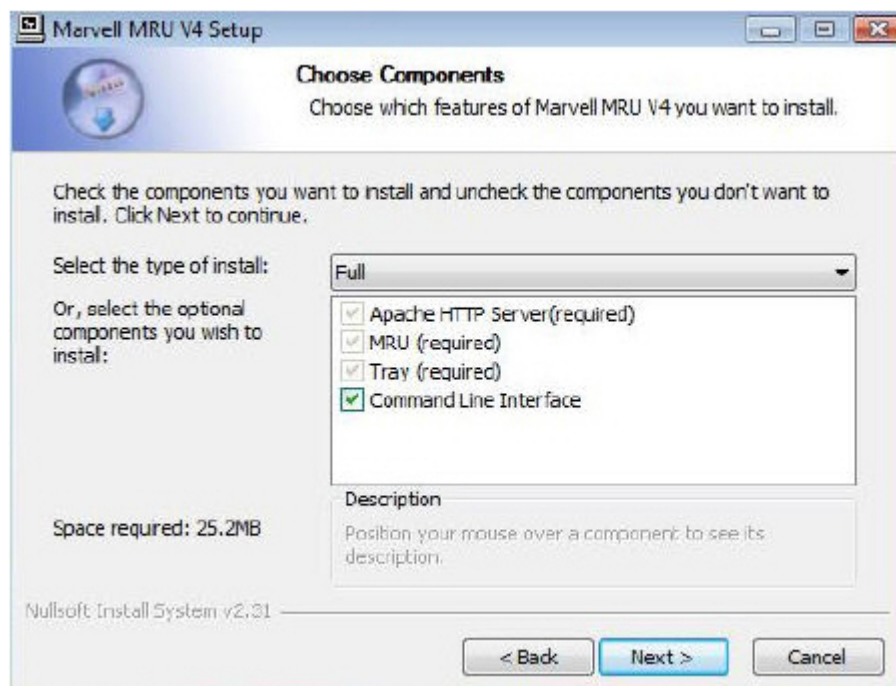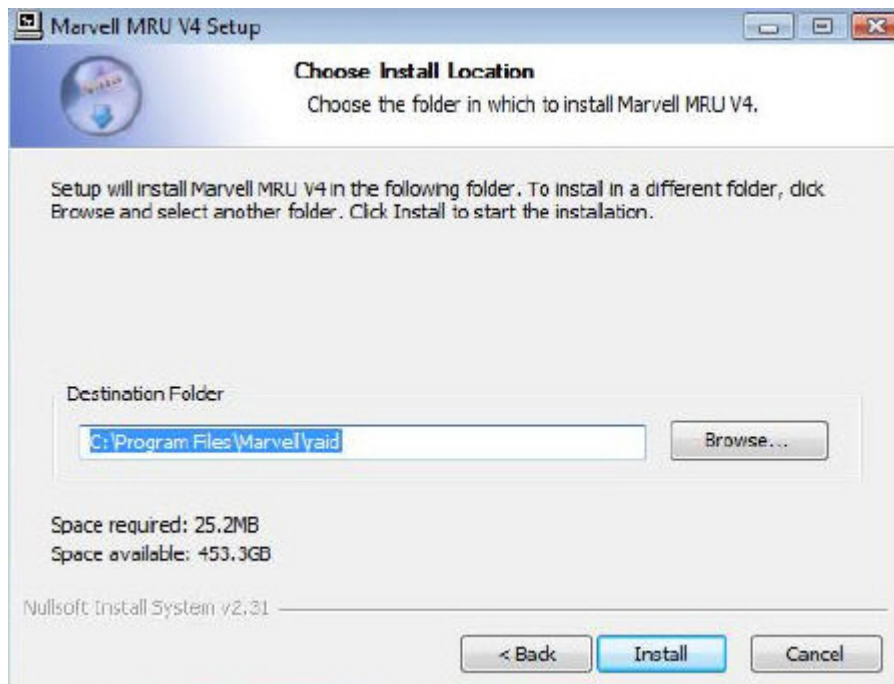

Click "Next" at the welcome screen.

The End User License Agreement (EULA) window appears. Read the EULA. Select "I accept" and click "Next" to continue.

Select the options you want for custom installation. Click "Next".

Choose Install Location window appears. For an alternative location, click "Browse", and then select your desired location. Click "Install".
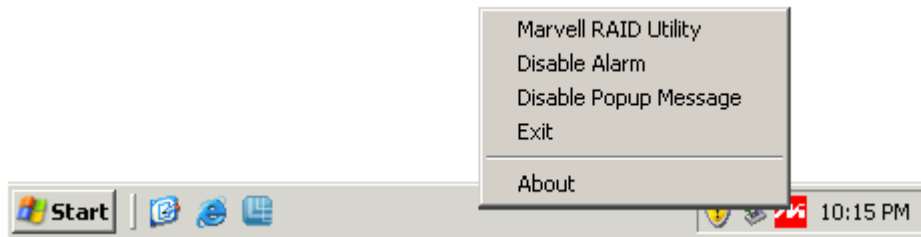

The software has been installed to your system. Click "Finish" to close the wizard.

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Restart your system. You will find the "Marvell RAID Utility" icon on the Windows task bar.

Launching the MRU in the Browser

After installing your MRU software, you can access and control both local and remote adapters using the browser GUI. For remote access, you need to know the IP address of the system with the remote adapter.

For the MRU to function properly in the browser, **Active Scripting** must be enabled in your default browser.

To enable Active Scripting in Internet Explorer

1. Select **Tools** > **Internet Options** > **Security** > **Custom Level**.

2. Under **Scripting** and check the radio button for **Active Scripting**.
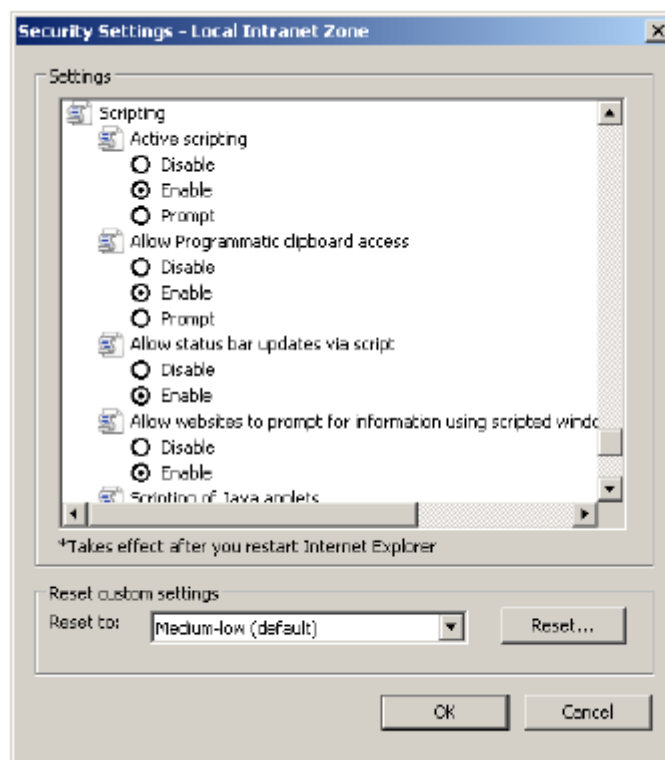
Note: Active Scripting is disabled by default in Internet Explorer distributed with Windows 2008.

Local Adapter

You can access and control local adapters using the MRU Browser GUI. This section describes the procedure to launch the GUI on Windows.

You can use the desktop shortcut and the system tray icon to launch the MRU in your default browser. When launched, your default browser opens and displays the MRU login page.
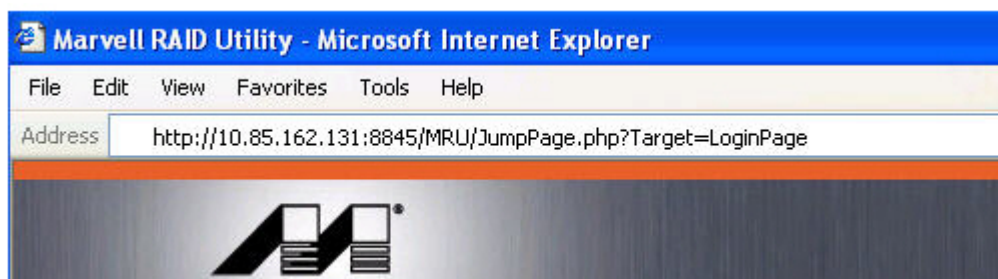

MarvellMRU

Remote Adapter

You can access and control remote adapters using the MRU Browser GUI.

1. Launch your default web browser.

2. Type the following web address in the address bar.

   http://*Your IP Address*:8845/MRU/JumpPage.php?Target=LoginPage

> **Note:** Alternatively, you can use the system name instead of the IP address in most internal network environments.
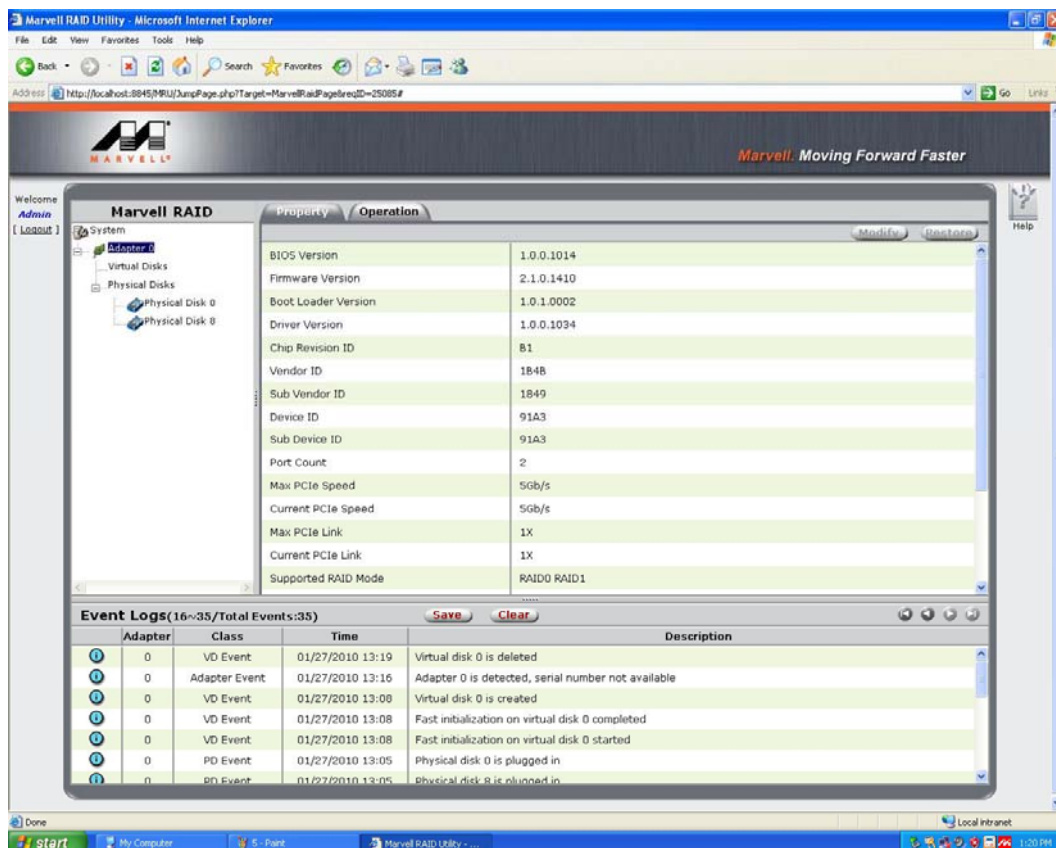
Login Screen

When you first start the MRU, you are prompted for a username and password. MRU user accounts and their permissions follow the OS user accounts and their permissions. Only user accounts with administrator privileges have access to all permissions. Non-administrator users have view-only permissions.

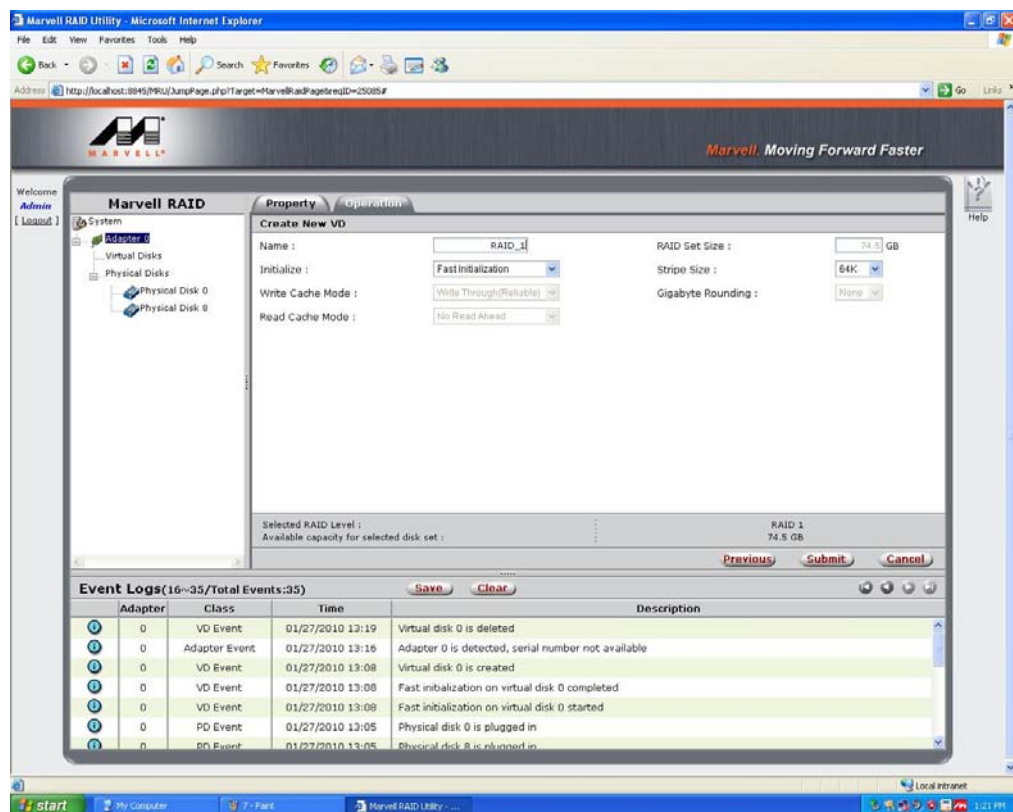Then the first page appears.

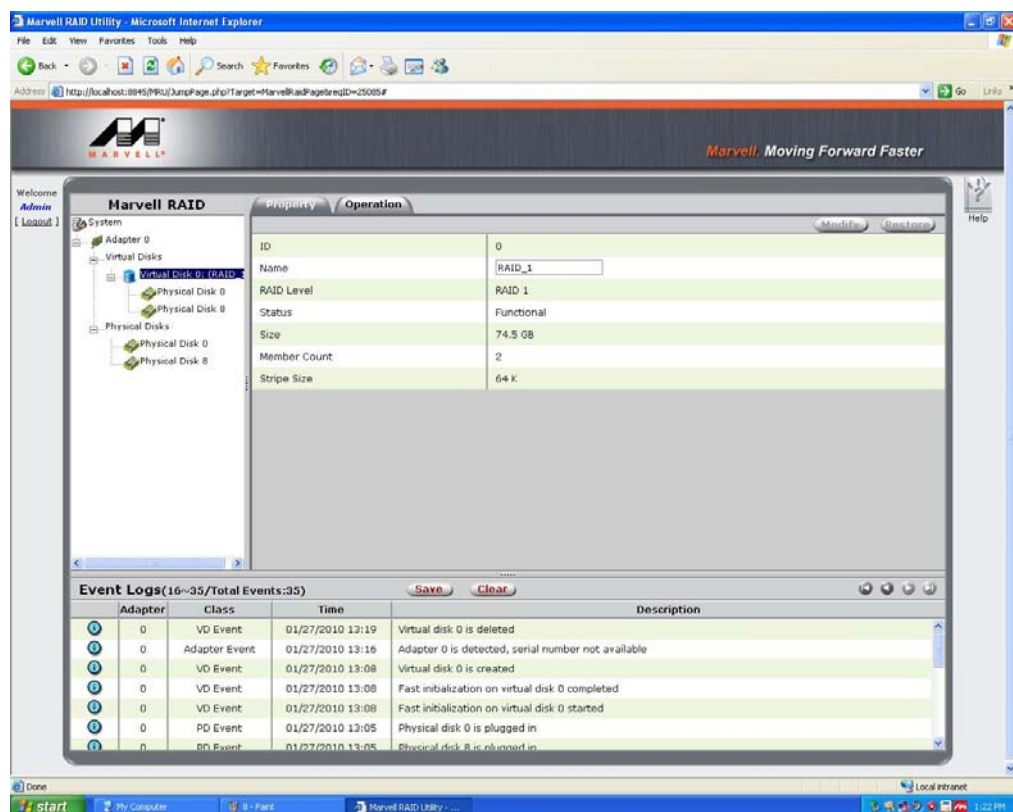## Create RAID

Click "Operation". Click "Create VD".
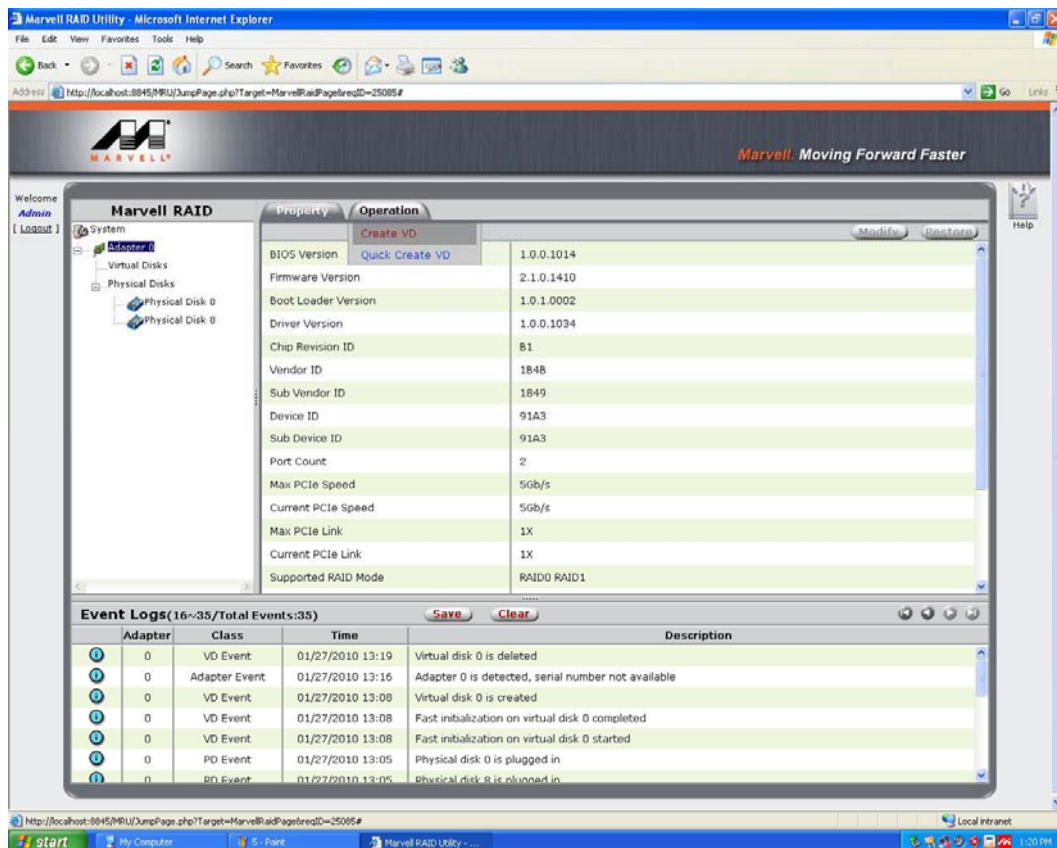
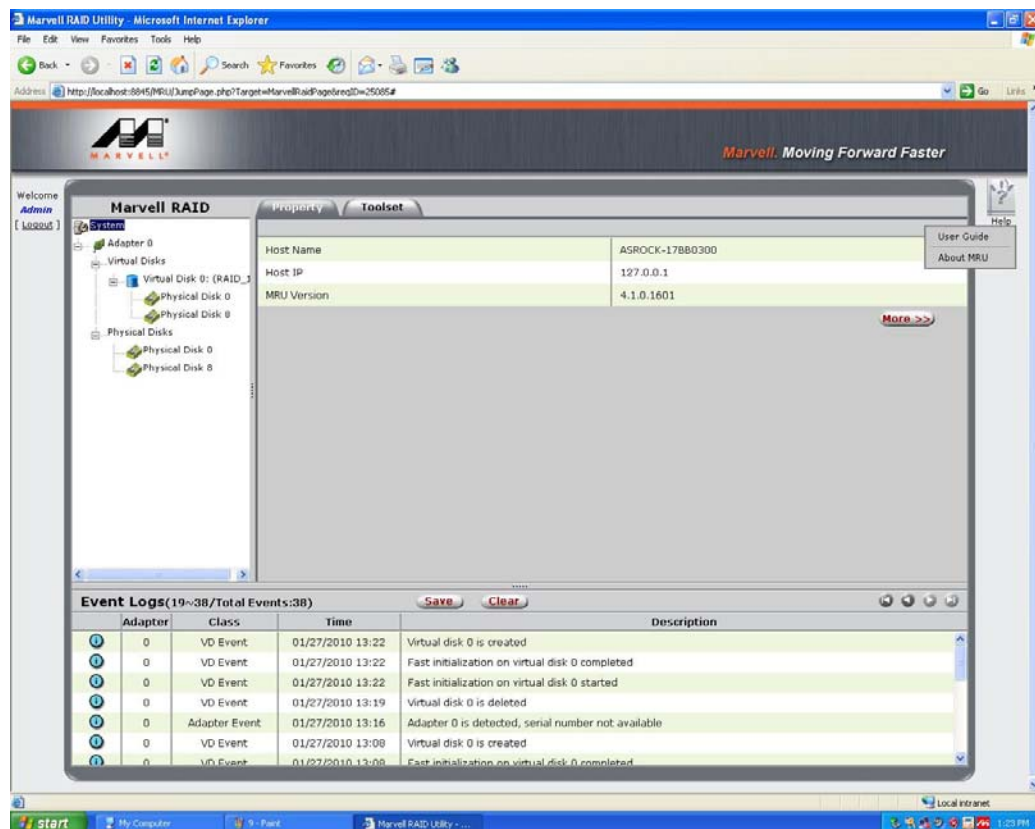Double-click the HDDs that you want to create RAID. Select the RAID level.
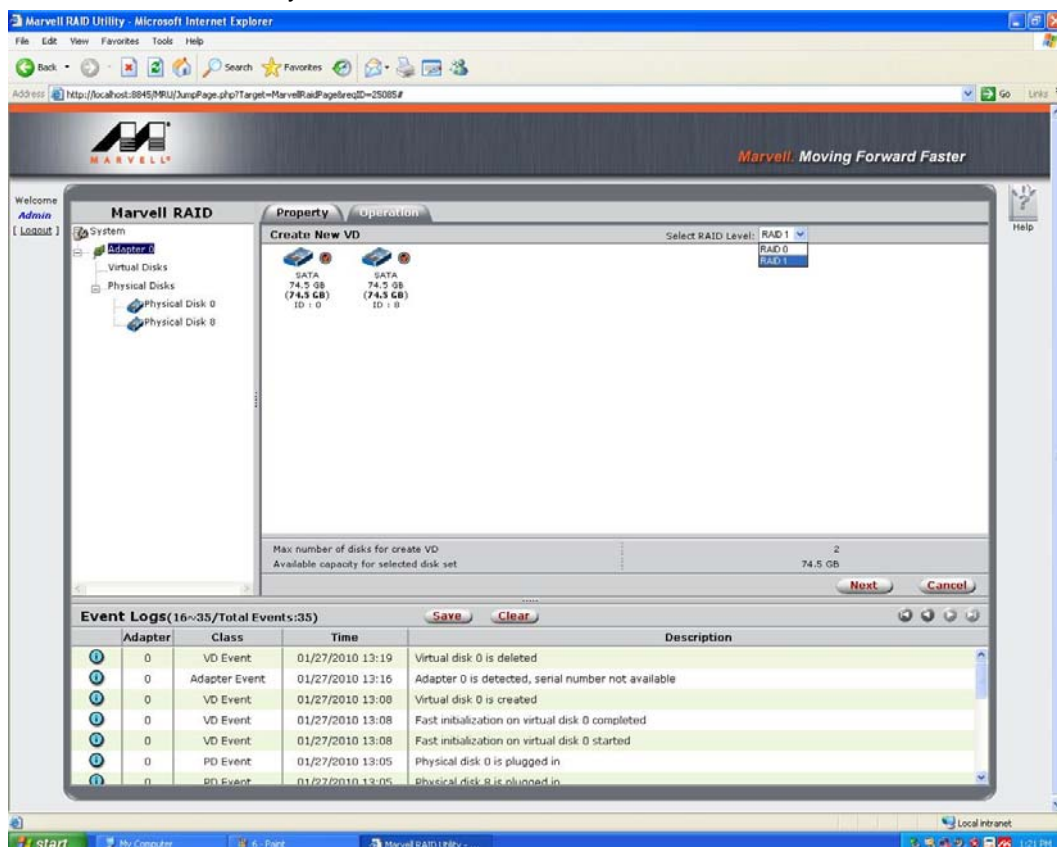
Key-in the RAID name. Click "Submit".

RAID function is created successfully. You can see the information on this page.

For the further information or questions, please click the "Help" icon the right-top of the screen.

Marvell RAID ROM

Besides Marvell SATA3 RAID utility, you can also use Marvell RAID ROM to configure RAID functions.
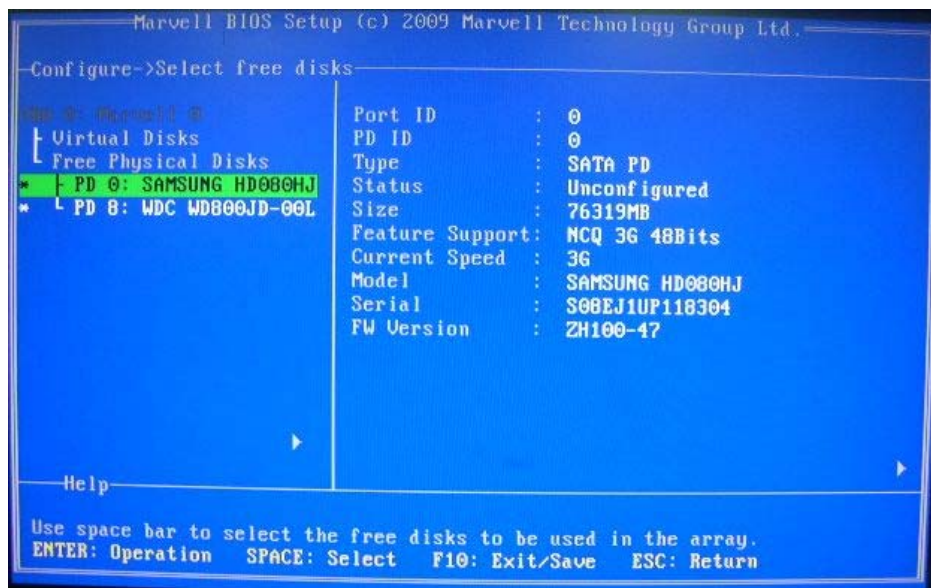
First of all, enter UEFI SETUP UTILITY, Advanced, Storage Configuration, Marvell 9230 RAID Configuration.
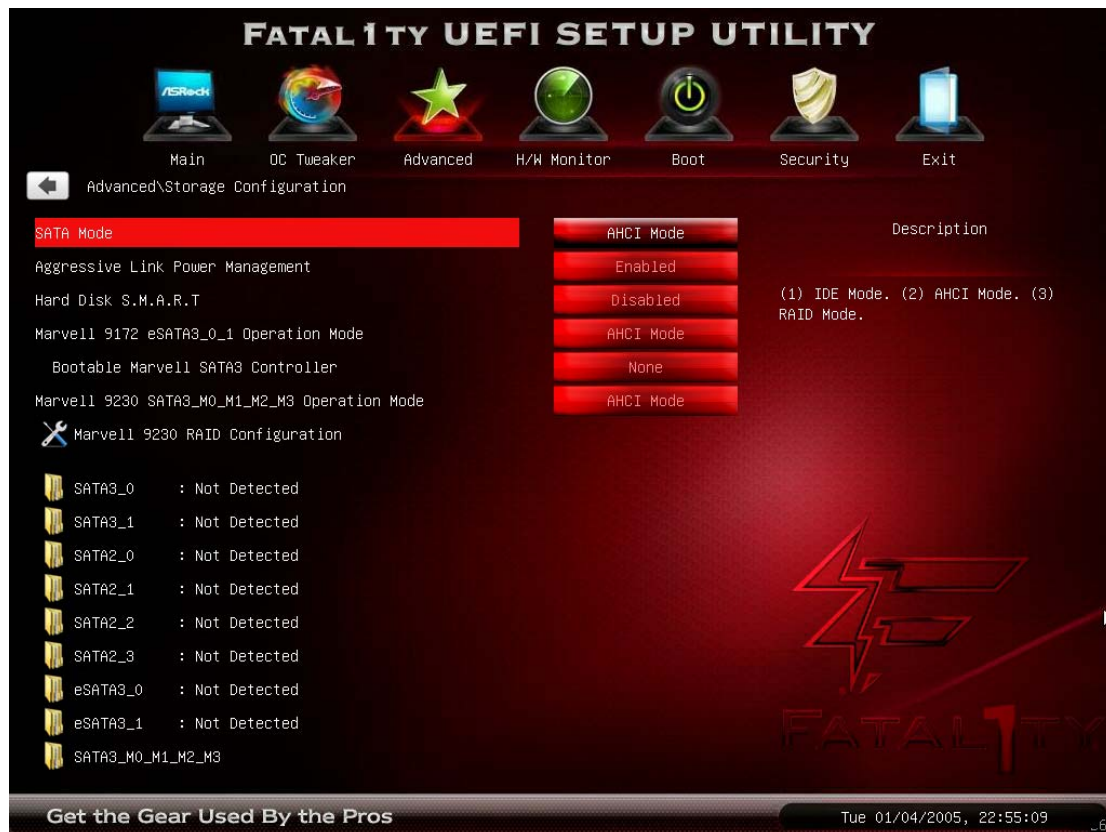
In Marvell BIOS Setup screen, select free disks to create array and continue to create virtual disk on this array. Press <Enter>.
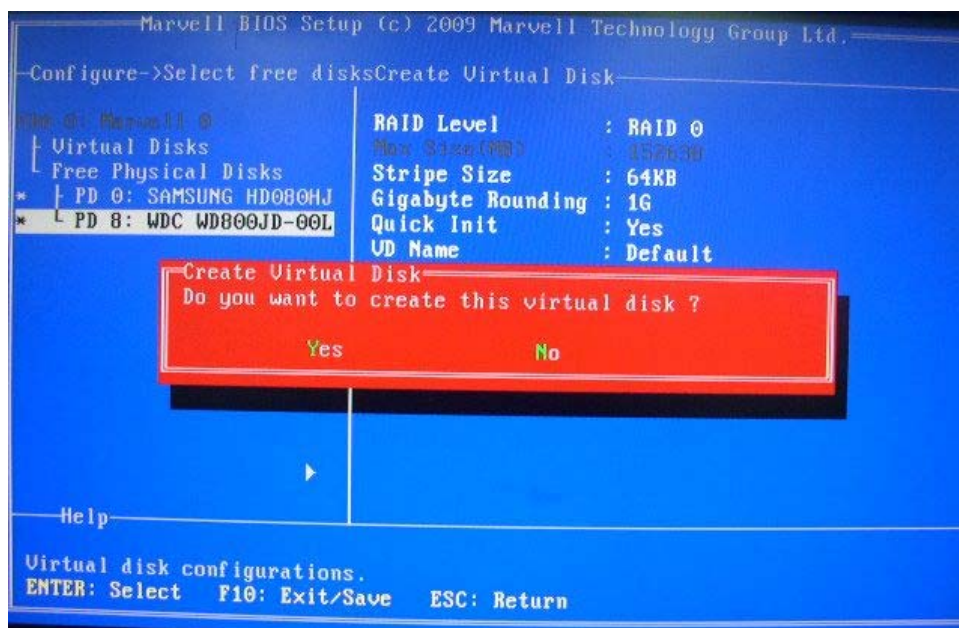
Use space bar to select the free disks to be used in the array. Press <Enter>.
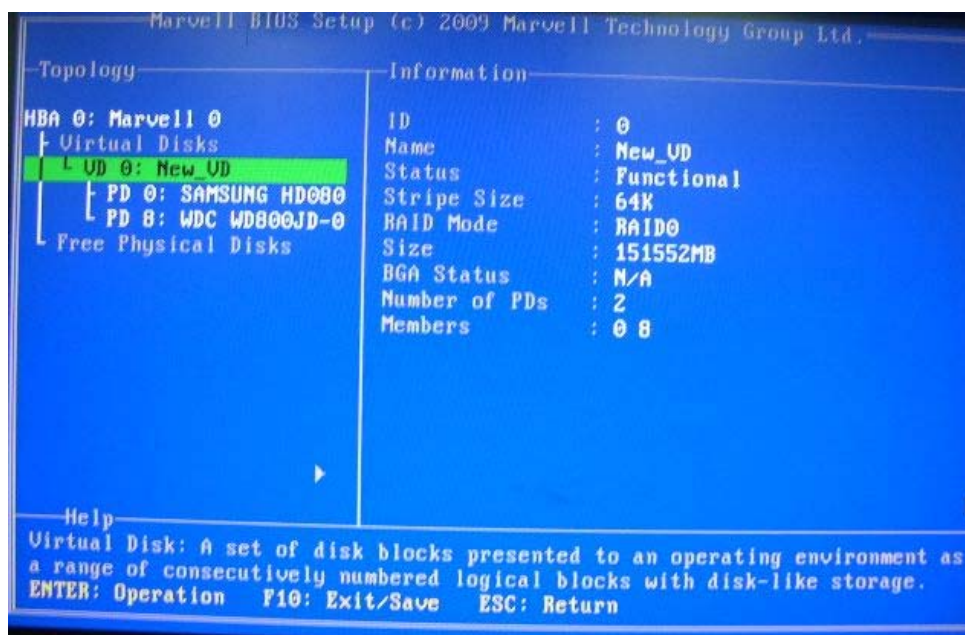

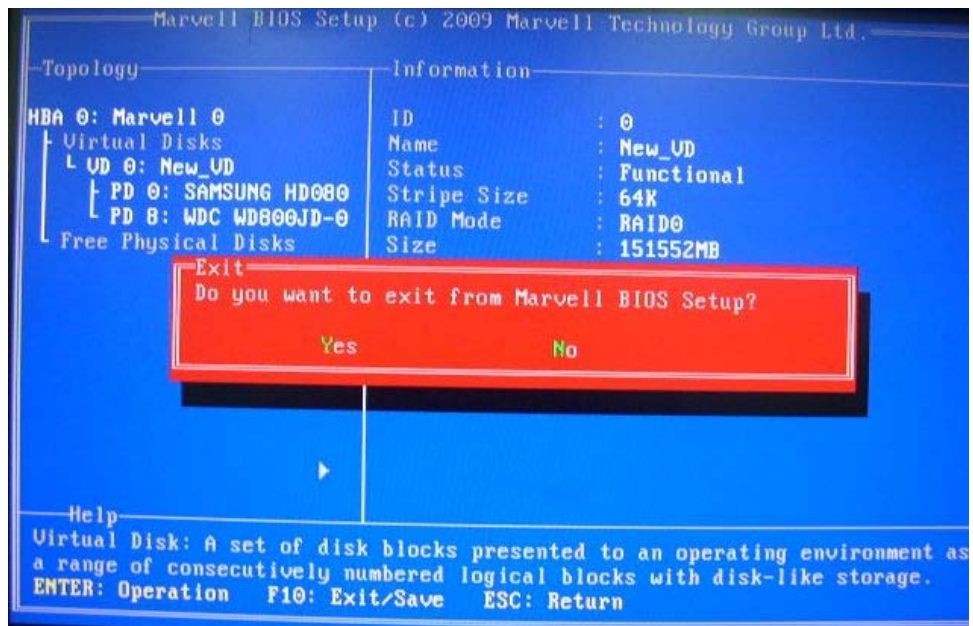Select the RAID level. Press <Enter> to confirm.

The pop-up message will ask if you want to create this virtual disk. Choose "Yes".
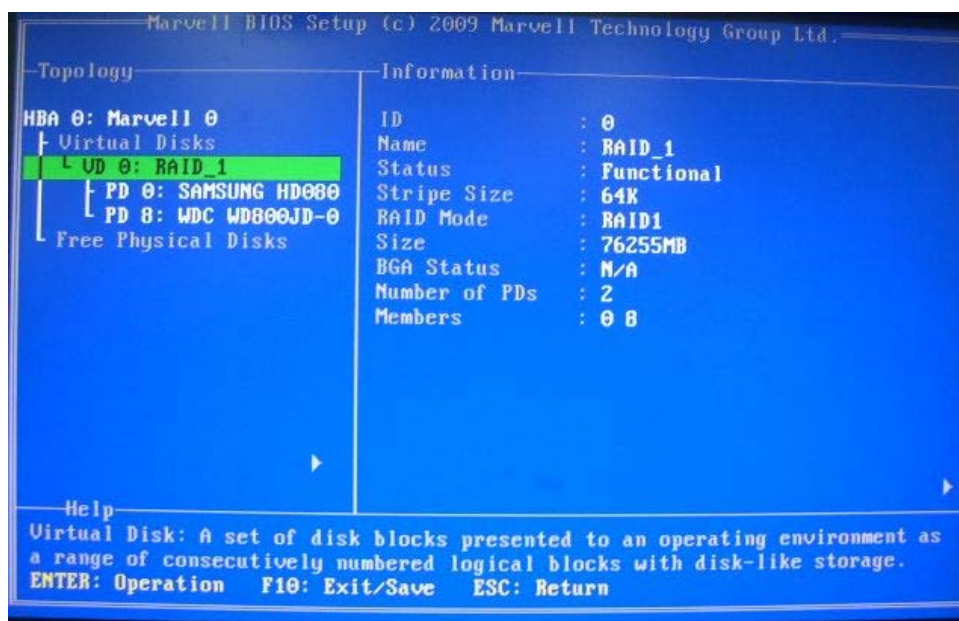

Then below screen appears.

In the exit message, the system will ask "Do you want to exit from Marvell BIOS Setup?" Choose "Yes".

You will see the information of RAID you create. Here we take RAID 1 for example. The Status shows "Functional" now, which means RAID 1 is created successfully.

Rebuilding is another function you may use. Rebuilding is the process of restoring data to a hard drive from other drives in the array. For example, assuming you have a two disk RAID 1 array, and one of the drives fail, then you need to replace the failed drive with a new one, and rebuild the array to re-generate the lost data on the newly added drive.

In below screen, the Status shows "Degrade". Install a new hard disk to replace the failed hard disk. In this situation, you can use Rebuild function to save your lost data.
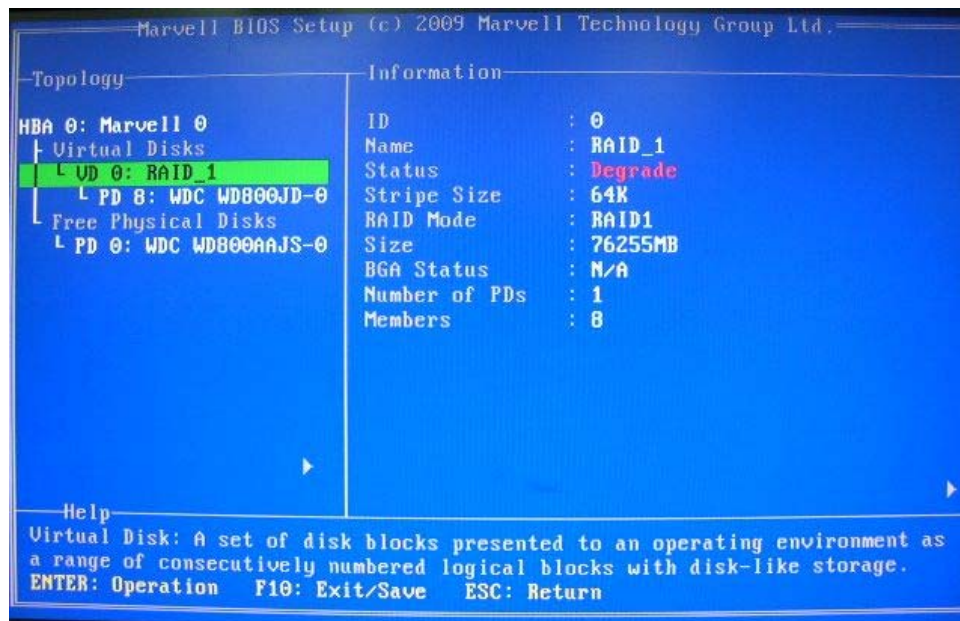
Choose <Rebuild> and press <Enter>. Select the free disk by pressing the space bar. (In this case, the free disk is PD 0.) Then follow the instructions on the screen to rebuild. The system will start to rebuild your lost data to the newly added hard disk.