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 our 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.

🚨 Marvell MRU V4 Setup		
6	License Agreement Please review the license terms before installing Marve	II MRU V4.
Press Page Down to see th	e rest of the agreement.	
MARVELL END USER LIMIT	ED USE LICENSE AGREEMENT	
this End User Limited Use	" as defined herein, is exclusively governed by the terms icense Agreement (the "Agreement") between MARVELL RYELL") and γου ("Licensee").	of
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Select the options you want for custom installation. Click "Next".

Marvell MRU V4 Setup	
6	Choose Components Choose which features of Marvell MRU V4 you want to install.
Check the components you v nstall. Click Next to continue	vant to install and uncheck the components you don't want to
Select the type of install:	Full
Or, select the optional components you wish to instal:	Apache HTTP Server(required) MRU (required) Tray (required) Command Line Interface
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Choose Install Location window appears. For an alternative location, click "Browse", and then select your desired location. Click "Install".

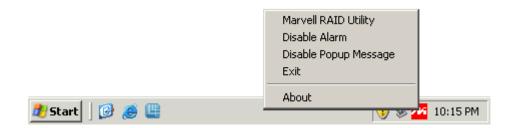
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The software has been installed to your system. Click "Finish" to close the wizard.



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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.

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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.

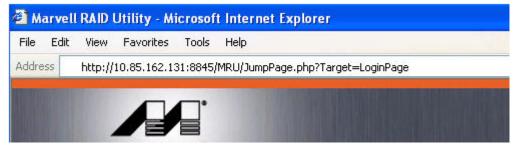


Remote Adapter

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.

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* Username * Password Remember pass Login	sword

Then the first page appears.

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Create RAID

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Click "Operation". Click "Create VD".

Double-click the HDDs that you want to create RAID. Select the RAID level.

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Key-in the RAID name. Click "Submit".

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

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

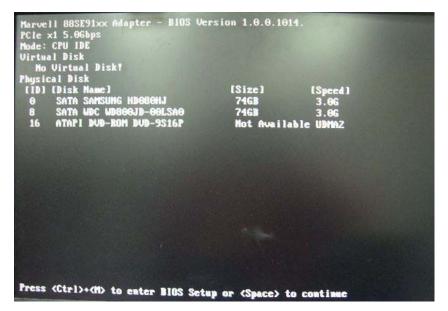
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Marvell RAID ROM

Besides Marvell SATA3 RAID utility, you can also use Marvell RAID ROM to configure RAID functions.

First of all, you need to make a SATA3 driver diskette.

Press <Ctrl>+<M> during the POST to enter Marvell BIOS Setup screen.



In Marvell BIOS Setup screen, select free disks to create array and continue to create virtual disk on this array. Press <Enter>.

BA 0: Marvell 0 Uirtual Disks Free Physical PD 0: SAMSUNG HD080HJ PD 8: WDC WD800JD-00L	tion Wizard] BIOS Version Firmware Version PCIe Speed rate Configure SATA as:	1B4B 91A3 B1 1.0.0.1014 2.1.0.1410 5.0Gbps IDE Mode	
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Help-			•

Use space bar to select the free disks to be used in the array. Press <Enter>.

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

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Help			

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

Then below screen appears.

► Help	-Topology HBA 0: Marvell 0 Virtual Disks L UD 0: New_VD PD 0: SAMSUNG HD080 PD 8: WDC WD800JD-0 Free Physical Disks	Information ID Name Status Stripe Size RAID Mode Size BGA Status Number of PDs Members	<pre>11 Technology Group Ltd. : 0 : New_UD : Functional : 64K : RAID0 : 151552MB : N/A : 2 : 0 B</pre>
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In the exit message, the system will ask "Do you want to exit from Marvell BIOS Setup?" Choose "Yes".

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Virtual Disk: A set of disk a range of consecutively nu ENTER: Operation F10: Exi			ironment as storage.

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.

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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.

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Help Virtual Disk: A set of disk a range of consecutively nu ENTER: Operation F10: Exi	unhered logical h	d to an operating environment as locks with disk-like storage.

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.

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