

The procedures described below provide step-by-step instructions to successfully complete your ATTO ExpressSAS RAID adapter update. Should you have any questions, or problems, our technical support team is available to assist you. Please contact them at (716) 691-1999 x 243, or techsupp@attotech.com.

Step 1 – Update the ExpressSAS RAID R680/R644/R608/R60F driver.

Download Windows driver 2.16 or later from our website.

1. Power on your system.
2. Log on to Windows as the system administrator.
NOTE: For Windows 7, Vista and Server 2008: If you have User Account Control enabled, you are asked for permission for the installer to continue. If you do not have administrator privileges, you are also asked for an administrator user name and password. Fulfill the required fields and click Continue.
3. Click 'unzip'. The driver files are extracted and the driver installer is launched.
4. Click 'Install'.
5. Follow the on-screen instructions to complete the driver installation.
6. If Windows prompts you to reboot, do NOT reboot at this time.

Step 2 – Launch the ATTO Configuration Tool

If you have not already installed the ATTO Configuration Tool, please download the ATTO Configuration Tool 3.38.

If you have the ATTO Config Tool 4.01 already installed, you must be running both the GUI **and** the agent on the machine with the ExpressSAS RAID R680, R644, R608, R60F installed.

Step 3 – Changing Notification settings

1. Click on the 'localhost' in the left window pane, labeled 'Device Listing'
2. You will see a tab called 'Notifications' in right window pane. Click on this tab (Figure 1).

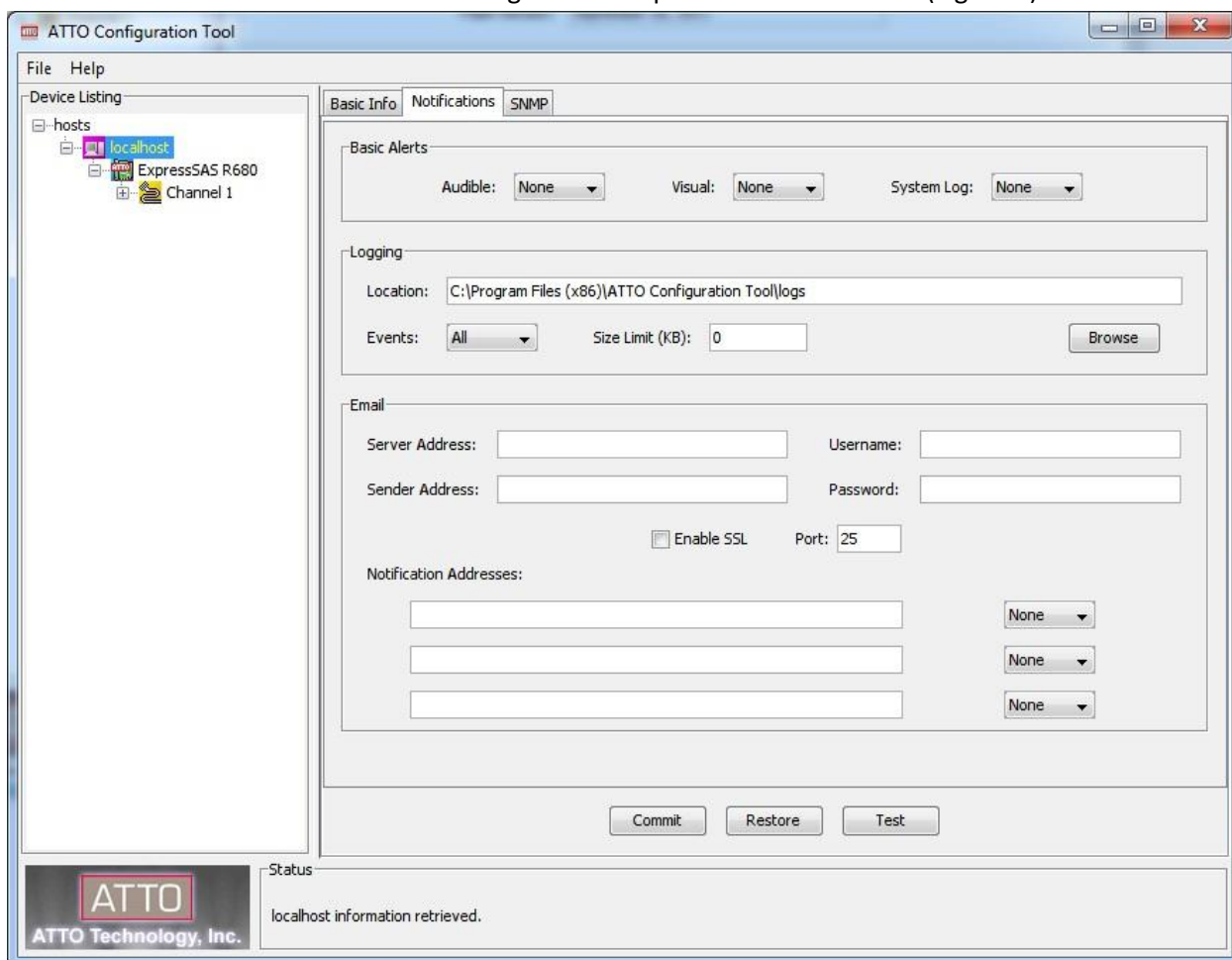


Figure 1

3. Record the current settings for the Basic Alerts for future reference.
4. Change Audible and Visual to 'None'.
5. For ATTO Configuration Tool 3.38, change System Log to 'None'. For ATTO Config Tool 4.01, change the System Log to 'ALL'.
6. Under Logging, make Events are set to 'ALL' and the Size Limit is set to '0'.
7. Under Email, for Notification Address, record the level for address for future reference.
8. Change each Email Notification Level to 'None'.
9. Press the 'Commit' button once changes are made.

For ATTO Configuration Tool 3.38 ONLY

10. Click on the SNMP tab (Figure 2).

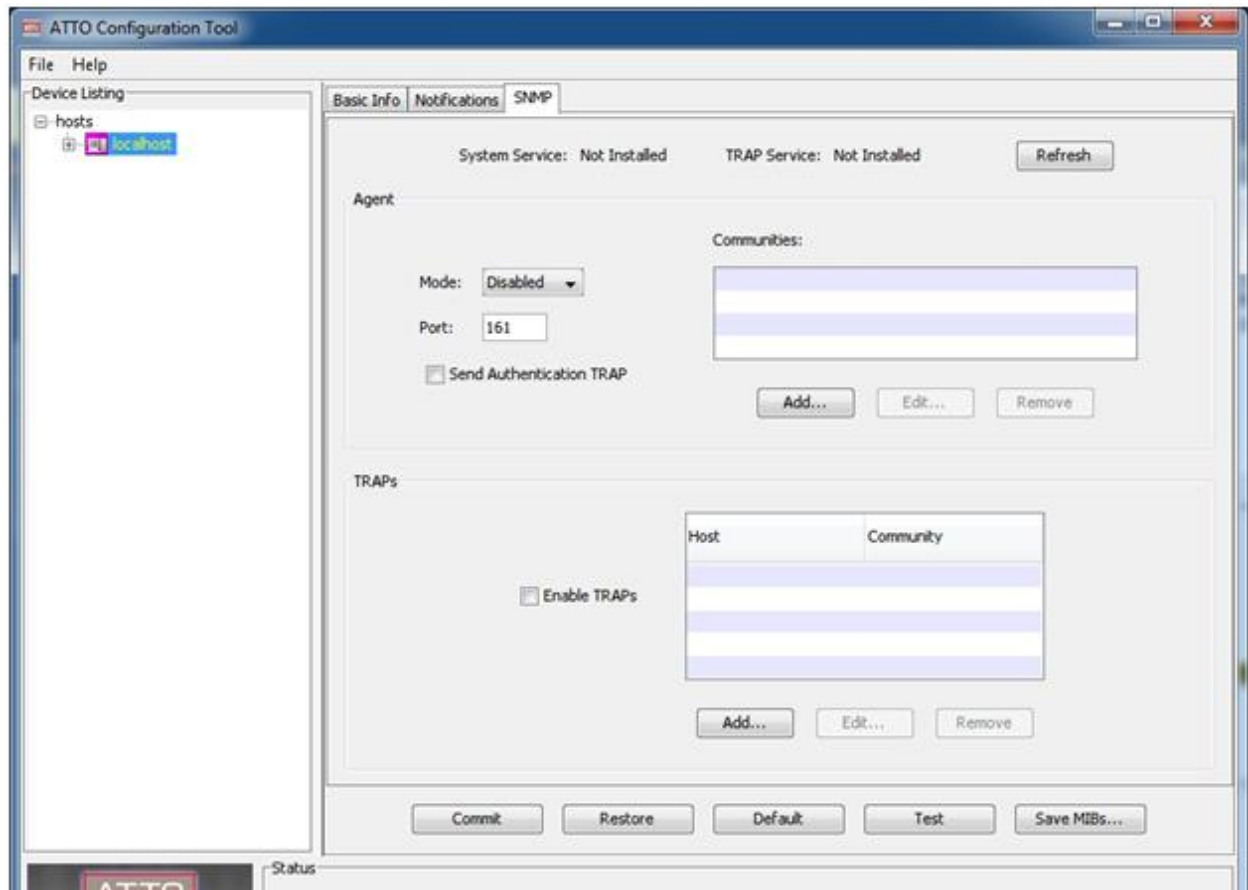


Figure 2

11. For the Agent Mode setting and the Enable Trap setting, record the current setting for future reference.
12. Under Agent Mode, change the Mode to 'Disabled'.
13. For the Enable Trap checkbox, uncheck this box.
14. Press Commit to save the settings.

Step 4 – Update Flash Bundle

Please download FlashBundle file 'fls_bios_esasraid2_2012_01_24' or later.

OR if your PC uses EFI, use 'fls_efi32_esasraid2_2012_01_24' or later.

OR if your PC uses EFI64, use 'fls_efi64_esasraid2_2012_01_24' or later.

1. In the left window pane, expand the device tree until you see the ExpressSAS R680, R644, R608, or R60F.
2. Click on the 'Flash' tab in the right pane (Figure 3).

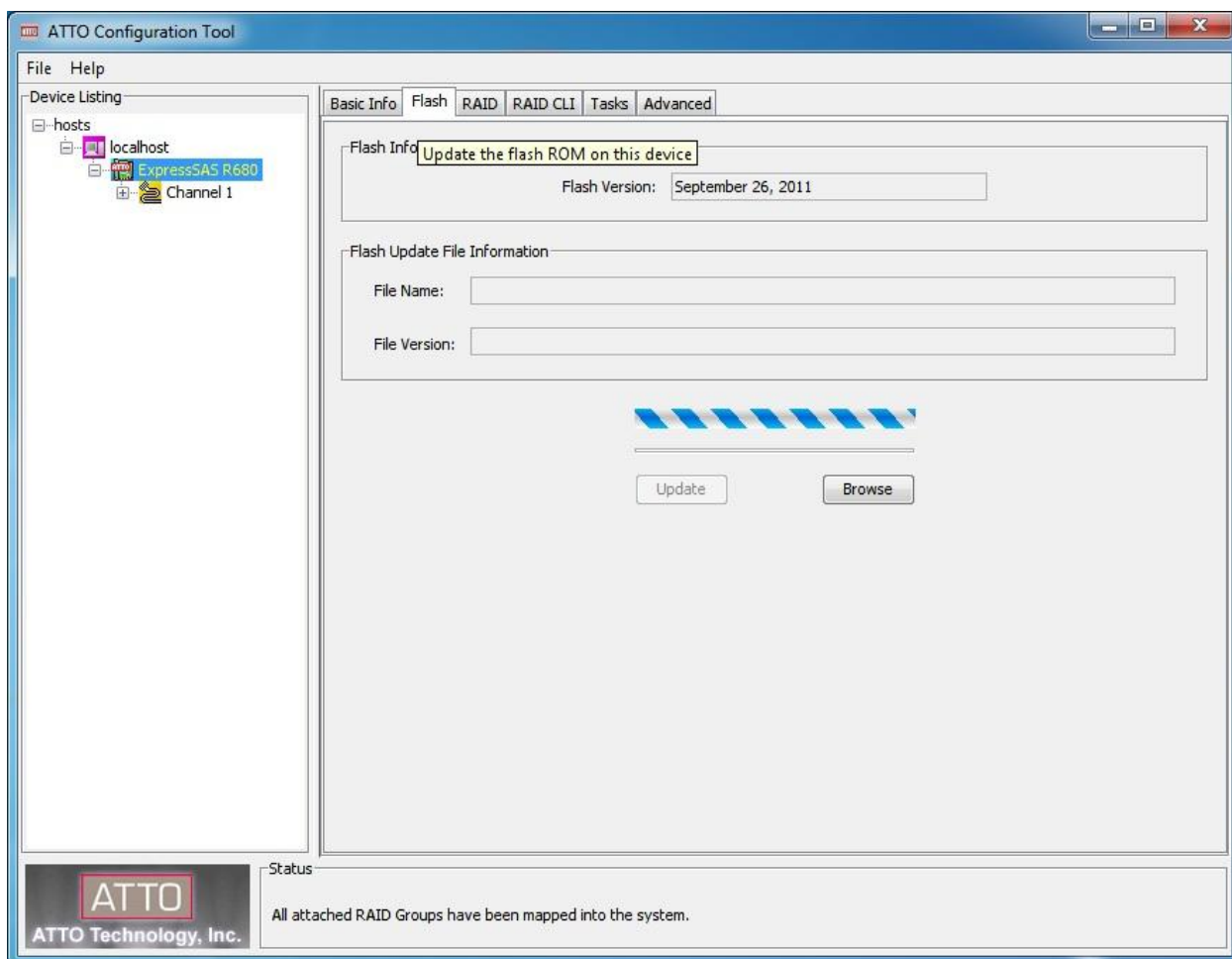


Figure 3

3. Browse to the downloaded flash bundle and click the 'Update' button. The flashing process may take several minutes.
4. You will need to repeat these steps for each ExpressSAS RAID R680, R644, R608, and R60F install in the system.

Step 5 - Quit ATTO Configuration Tool and Restart Windows

Restarting the Operating System is a necessary step for the new driver and flash bundle to be loaded. Restart your system now.

Step 6 – Launch the ATTO ESASRAID Maintenance application

If you have not already, please download the ATTO ESAS RAID Maintenance application.

1. Unzip and double-click the ATTO ESAS RAID Maintenance application (Figure 4).

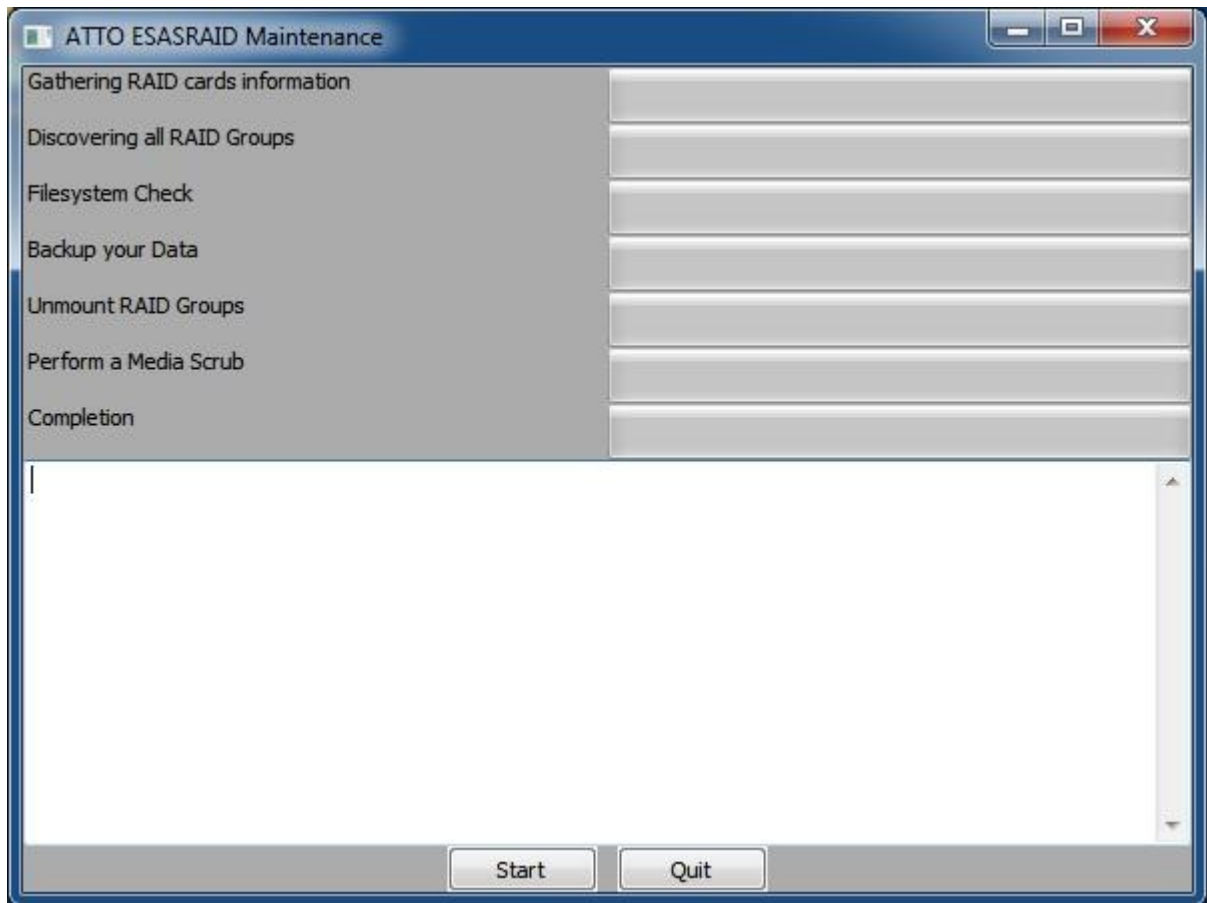


Figure 4

2. Click the 'Start' button to begin.
3. "Gathering RAID card information"
The application will first gather information about all of the RAID cards installed in the system and this information in the console window. If it finds old flash bundles or old drivers installed, it will give you a message and quit.
4. "Discovering All RAID Groups" - The application will discover all RAID groups and display these RAID groups in the console.

5. “Filesystem Check” - Improper system reboots, drive hardware problems, viruses, power surges or brown outs, etc. can contribute to a file system becoming damaged. Routinely running a file system check is a crucial part of best practices to maximize the safety of your data.

We HIGHLY recommend that you run a file system check to identify and fix any file system errors. This check will minimize the chance of a problem later in this process.

Windows File System Check

- a. First we need to find each ATTO RAID Group in Disk Manager
- b. Click on the Start button or the Windows button on the Task Bar.
- c. Select Run.
- d. Type: diskmgmt.msc (Figure 5).

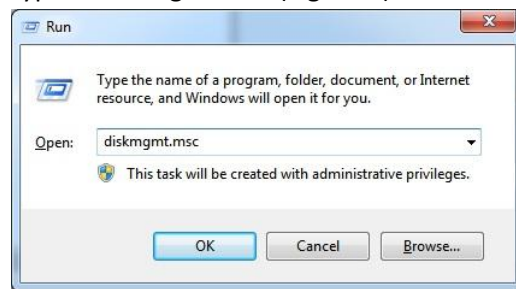


Figure 5

- e. You should see a window like Figure 6.

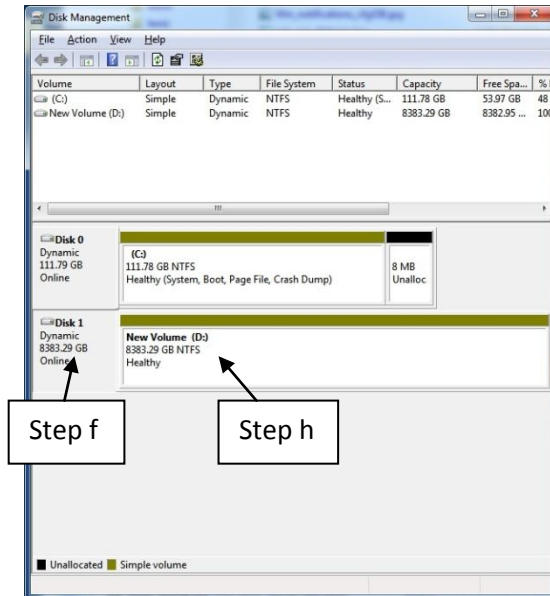


Figure 6

- f. Right click each Disk and Select Properties (Figure 7).

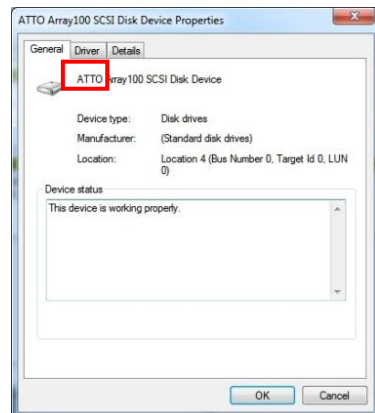


Figure 7

- g. If you see ATTO in the name, this is a disk that needs a file system check. Click the 'OK' button.
- h. On the partition, right click and select Properties.
- i. Click on the Tools tab (Figure 8).

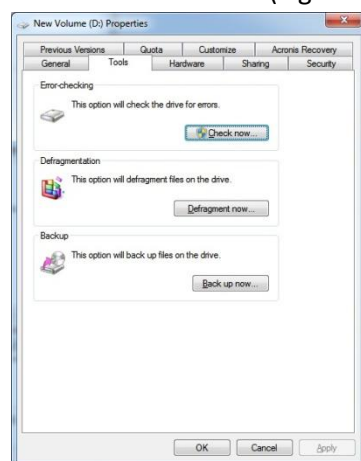


Figure 8

- j. Under Error-checking, click on the 'Check now' button (Figure 9).

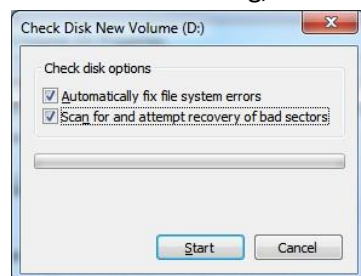


Figure 9

- k. Make sure both check box item are marked and click the 'Start' button.

f. You should see a window like Figure 11.

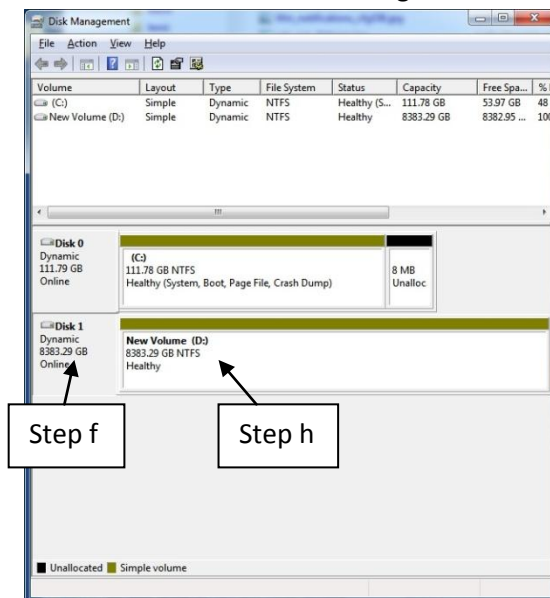


Figure 11

g. Right click each Disk and Select Properties (Figure 12).

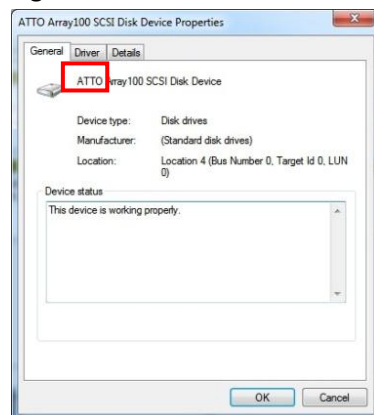


Figure 12

h. If you see ATTO in the name, this is a disk that needs a file system check. Click the 'OK' button.

- i. On the partition, right click 'Change drive letter and paths' (Figure 13).

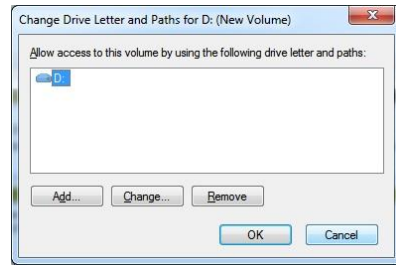


Figure 13

- j. Make note of the Drive Letter and click the 'Remove' button.
- k. Click 'Yes' to pop-up to remove the drive letter.
- l. Close the Disk Management Window.
- m. Repeat these steps for every RAID group.
- n. Once all partitions have been un-mounted, type 'PROCEED' in the application pop-up window and click 'OK'.

8. "Perform a Media Scrub"

Performing a Media Scrub is another crucial part of maximizing the safety of your data. Drives over time can develop areas where blocks can become inaccessible even when not routinely accessed. Running a Media scan should be a regular aspect of your data protection plan.

***This scans will find the unprotected areas of your RAID group and fix them.
Do NOT launch the ATTO Configuration Tool and alter any processes and settings during this scan.***

9. "Completion"

The application will report the final findings. If all discovered RAID groups passed, proceed to Step 7.

If a failure is noted, please proceed to Appendix A for further instructions.

Step 7 – Enable Notifications

1. Click on the 'localhost' in the left window pane, labeled 'Device Listing'
2. You will see a tab called 'Notifications' in right window pane (Figure 14).

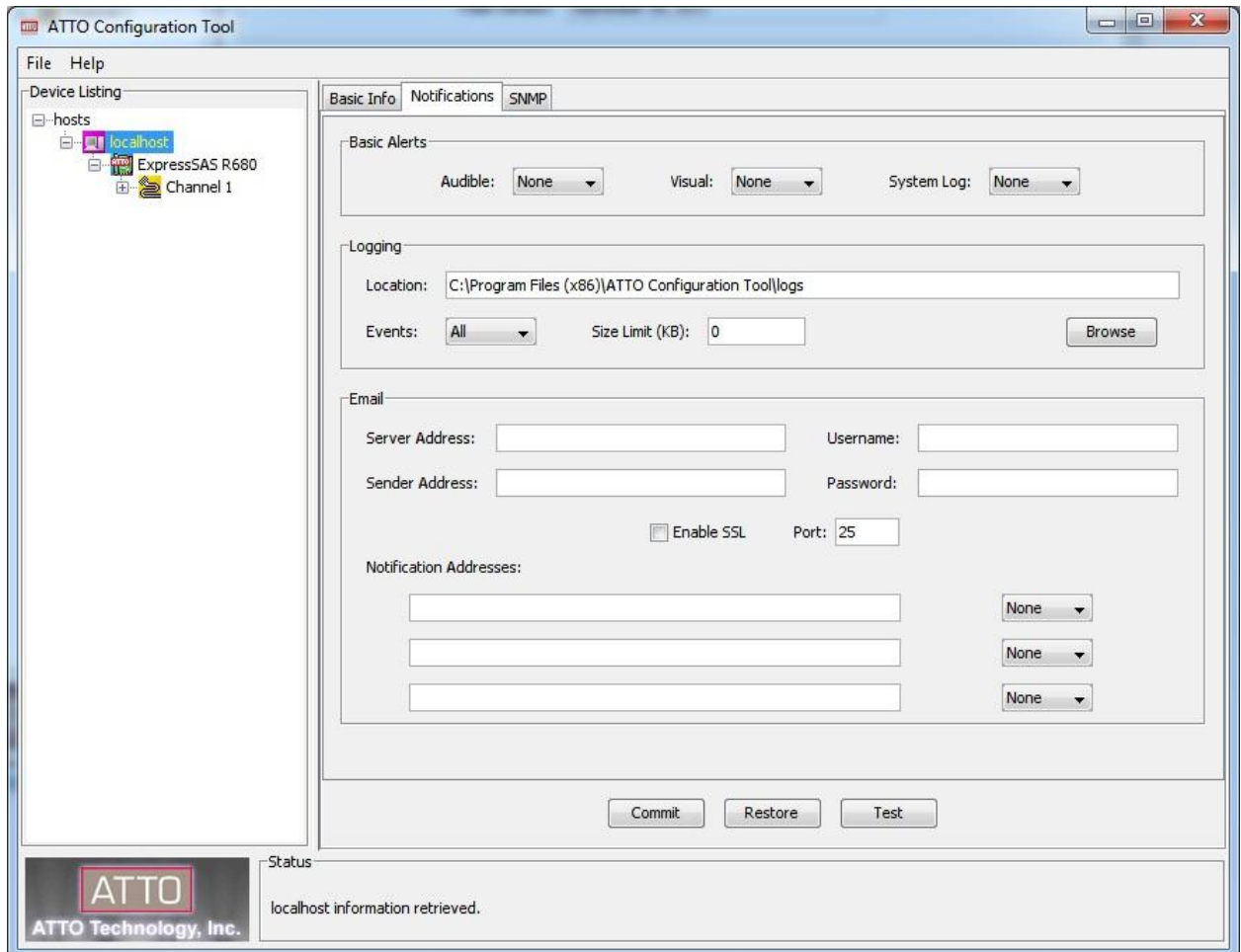


Figure 14

3. Change the Basic Alerts back to your recorded settings.
4. Under Logging, make Events are set to 'ALL' and the Size Limit is set to '0'.
5. Change your Email Notification Addresses back to your recorded settings.
6. Press the 'Commit' button once changes are made.
7. Quit the ATTO Configuration Tool.

For ATTO Configuration Tool 3.38 ONLY

8. Click on the SNMP tab (Figure 15).

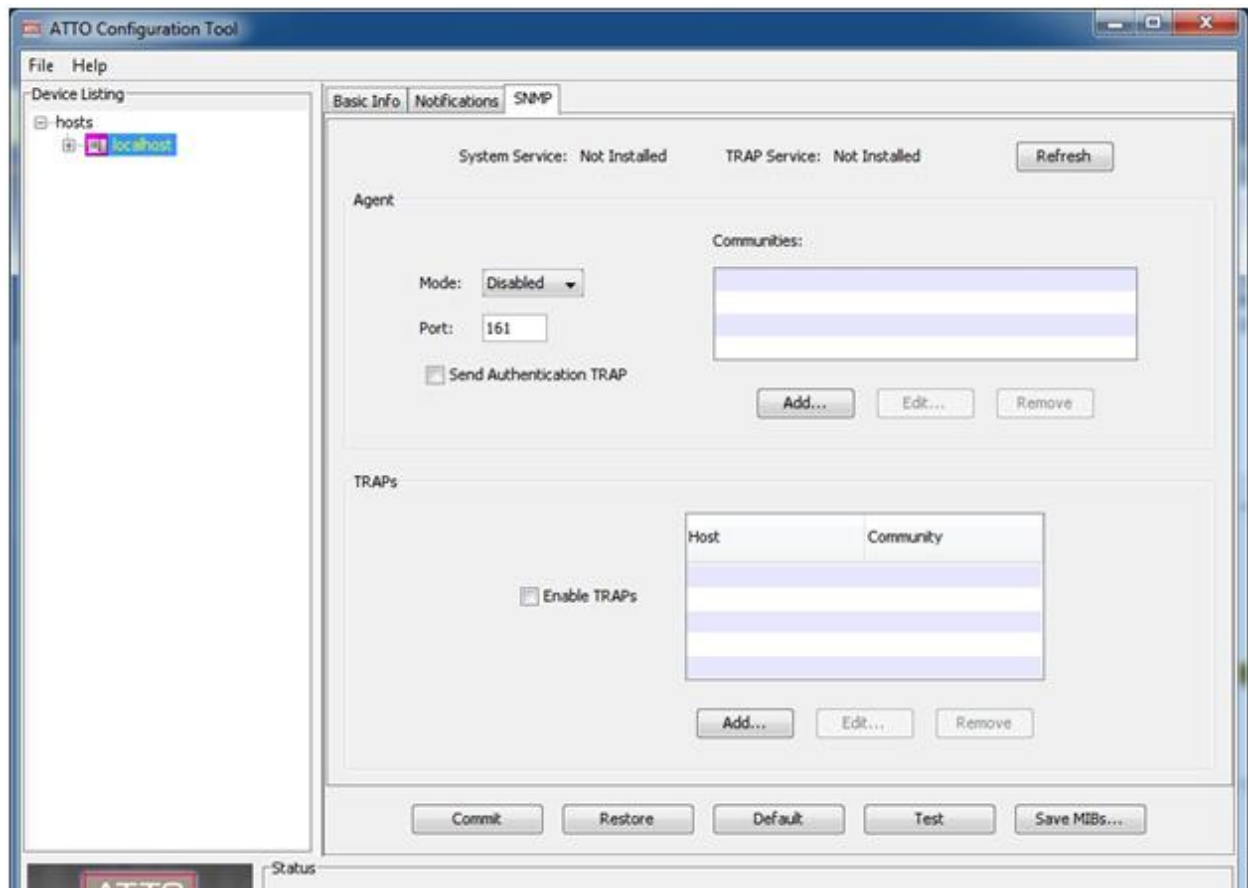


Figure 15

9. For the Agent Mode setting and the Enable Trap setting, change these back to your record the current settings
10. Press Commit to save the settings.

Step 8 – Mount your volumes

Mounting Windows Volumes

- First we need to find each ATTO RAID Group in Disk Manager
- Click on the Start button or the Windows button on the Task Bar.
- Select Run.
- Type: `diskmgmt.msc` and click 'OK' (Figure 16).

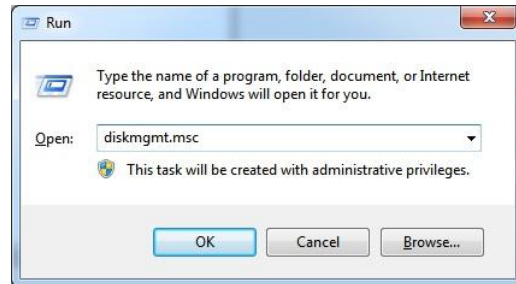


Figure 16

- You should see a window like Figure 17.

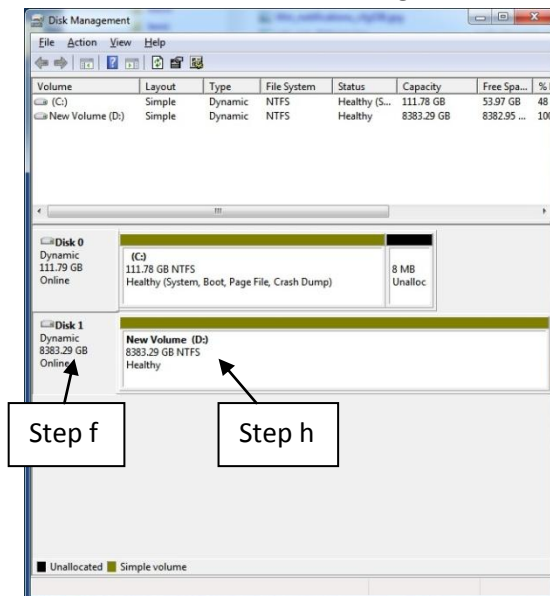


Figure 17

- f. Right click each Disk and Select Properties (Figure 18).

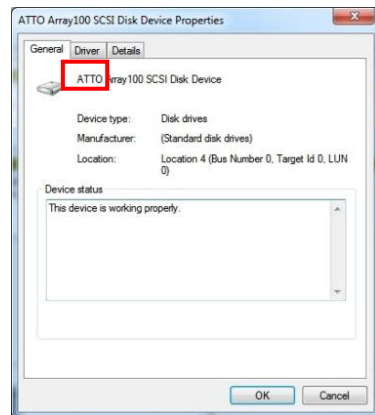


Figure 18

- g. If you see ATTO in the name, this is a disk that needs a file system check. Click the 'OK' button.
- h. On the partition, right click 'Change drive letter and paths' (Figure 19).

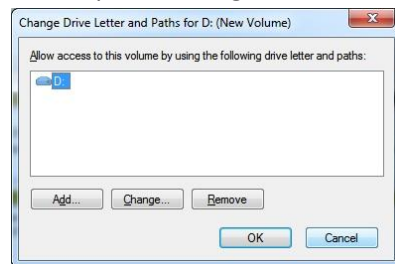


Figure 19

- i. Click the 'Add' button and assign the recorded drive letter to the drive.
- j. Close the Disk Management Window.
- k. Repeat these steps for every RAID group.

Appendix A

1. If a failure is noted, there will be a file called “ATTO.log” in the same directory as the application.
2. **For ATTO Configuration Tool 3.38 users:** There is additional logs located in “Program Files\ATTO Configuration Tool\logs” or “Program Files(x86)\ATTO Configuration Tool\logs”.
3. **For ATTO Configuration Tool 4.01 users:** Launch the ATTO Config Tool 4.01. Log into the localhost and then click the 'Notification' tab. Press the 'Save' button to save the log.

Please gather these logs and contact ATTO for technical support:

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