RAID - CREATING MULTIPLE VOLUMES

This section will help you delete the Data [D] volume and create multiple volumes that do not surpass 2TB. Please note that all data stored on Data [D] will also be deleted. **You must backup all data stored on Data [D] before deleting it.**

Note: The following instructions assume a 5big Office/Office+ with five drives. The RAID configuration follows the example listed in RAID - Five-Disk Server. While your RAID configuration may not exactly match the screenshots below, you may still use the instructions as a guide to delete existing volumes and create new partitions.

Important info: Deleting volumes and creating RAID arrays are data destructive operations. Please make certain that all data has been backed up and that all Shared Folders have been moved to other volumes before performing either operation.

DELETE AN EXISTING RAID VOLUME

Use Disk Management to delete a volume:

1. Launch the Dashboard from a Windows workstation on the same network as your LaCie 5big Office/Office+.
   Start > All Programs > Windows Home Server 2011/Windows Storage Server 2008 R2 > Windows Home Server 2011 Dashboard/Windows Storage Server 2008 R2 Dashboard
2. Select the **Home** tab.
3. Click once on **COMMON TASKS**.
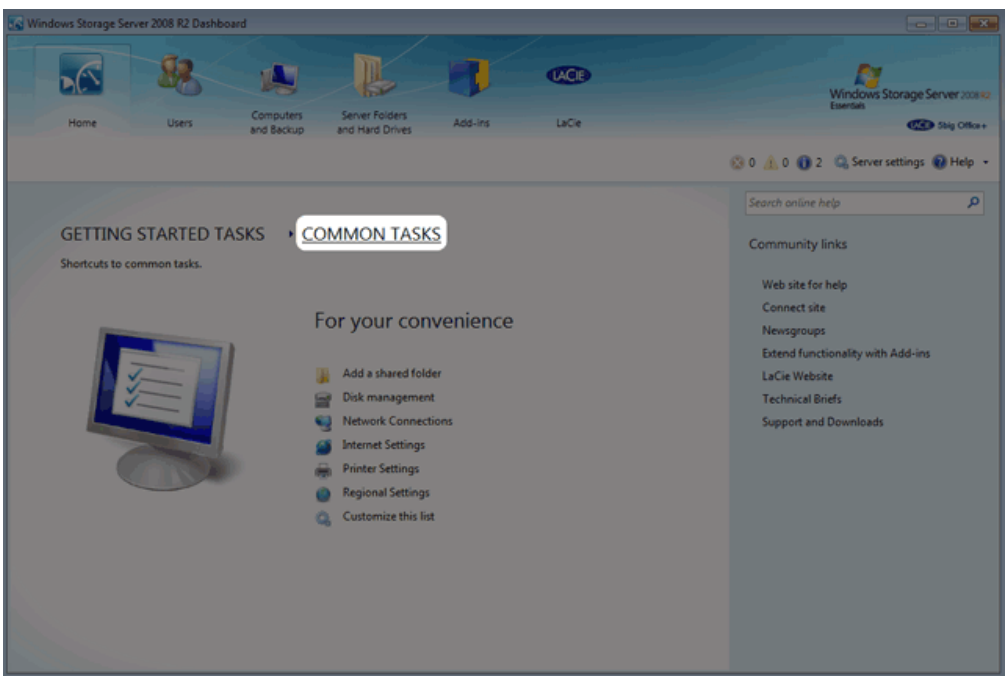
4. Click once on **Disk Management**.

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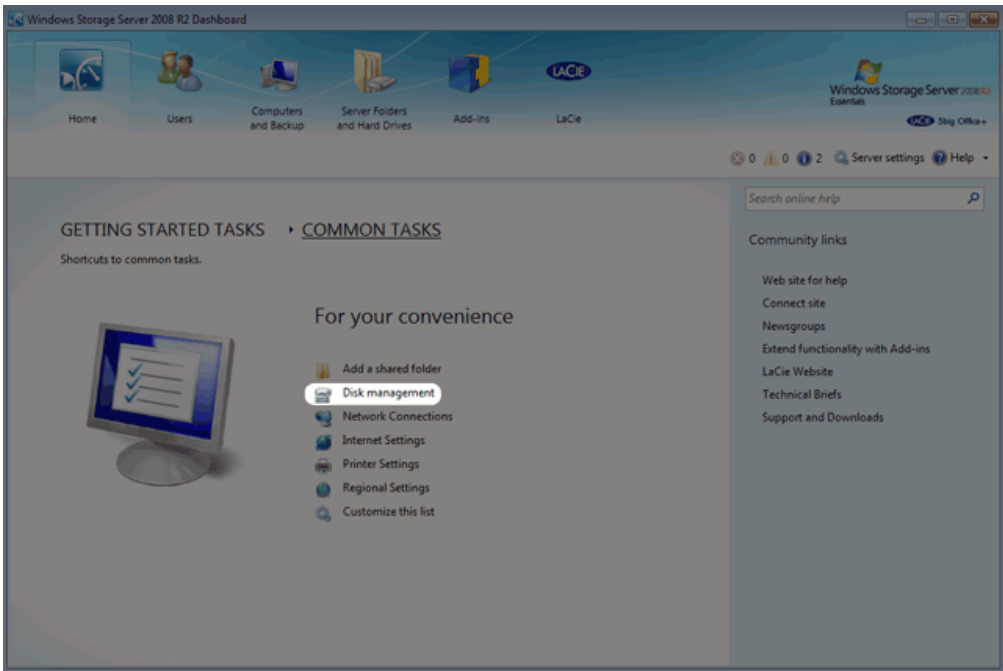
5. The screenshot below shows the default RAID configuration for a 5big Office/Office+ with five hard drives. Before creating volumes that do not surpass 2TB, we will delete the largest partition, Data [D].

6. Right-click on the Data [D] volume. You may right-click on any of its five disks. Select **Delete Volume...**

7. If you have backed up all data and moved all Shared Folders stored on Data [D], click **Yes**.
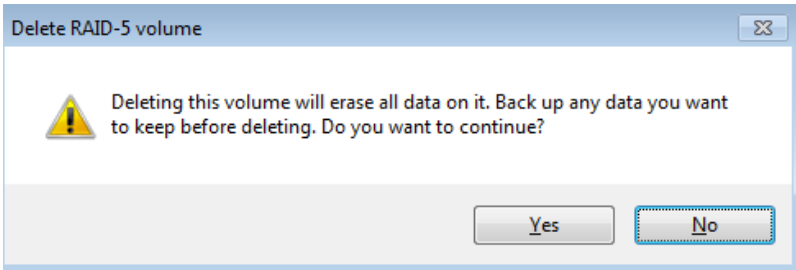
8. The volume Data [D] has been deleted.

OPTIONAL NAME CHANGE

Adjusting the size and order of the partitions will add more volumes to Disk Management. Consequently, the disks will no longer appear in the same order as the default RAID configuration. For organizational purposes, it may be easier to change the name and letter of Data 2 [E] so that the Data drives read clearly from left to right in Disk Management. This step is optional and may be skipped.

> **Important info:** Editing the name of the volume will have little effect upon the links to Shared Folders on the server. However, changing the drive letter of a volume will require that you revise the location of Shared Folders on the server.
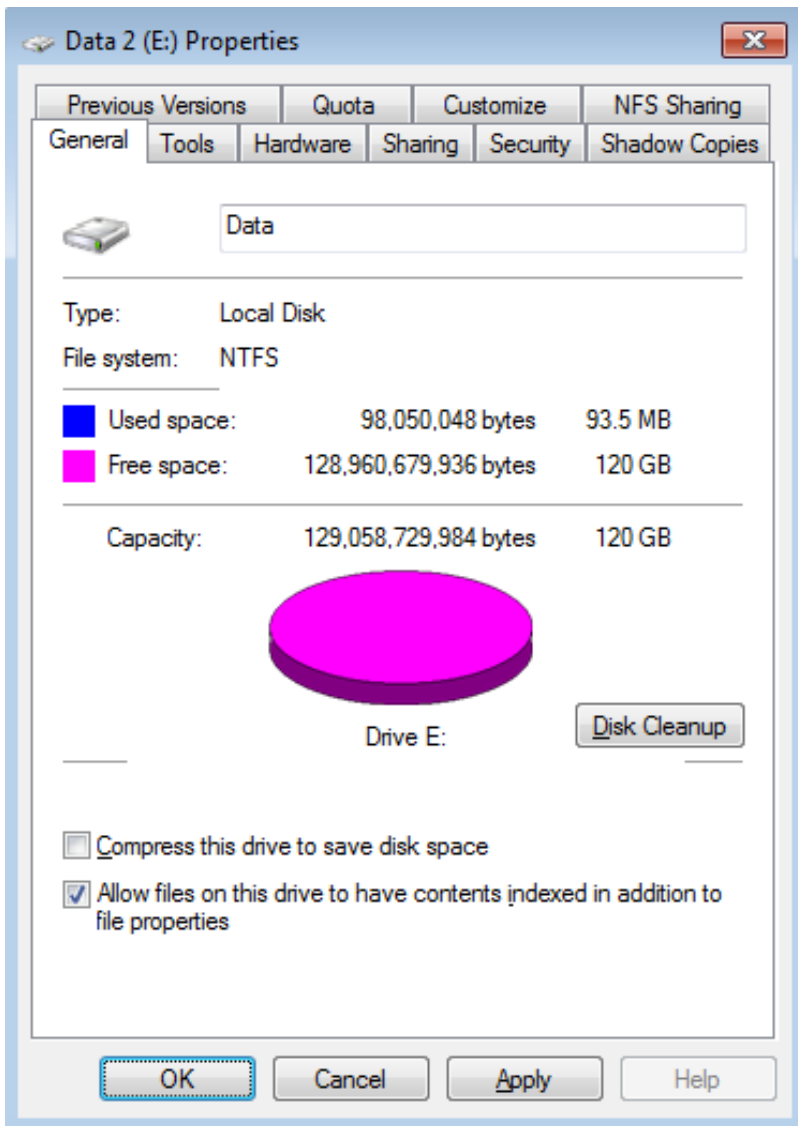
To change the name and volume letter:

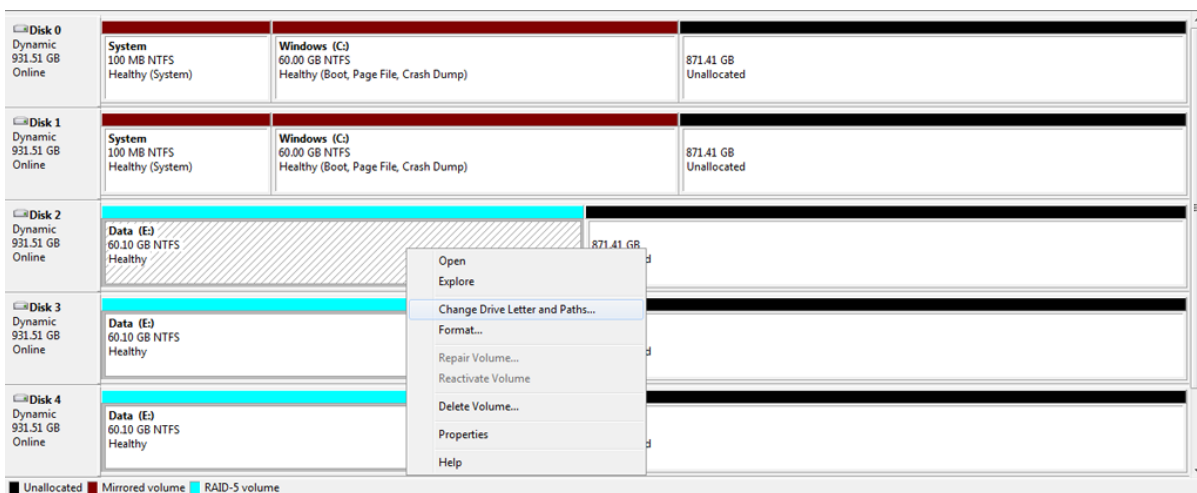1. Right-click on any drive in the Data 2 [E] volume. Select **Properties**.
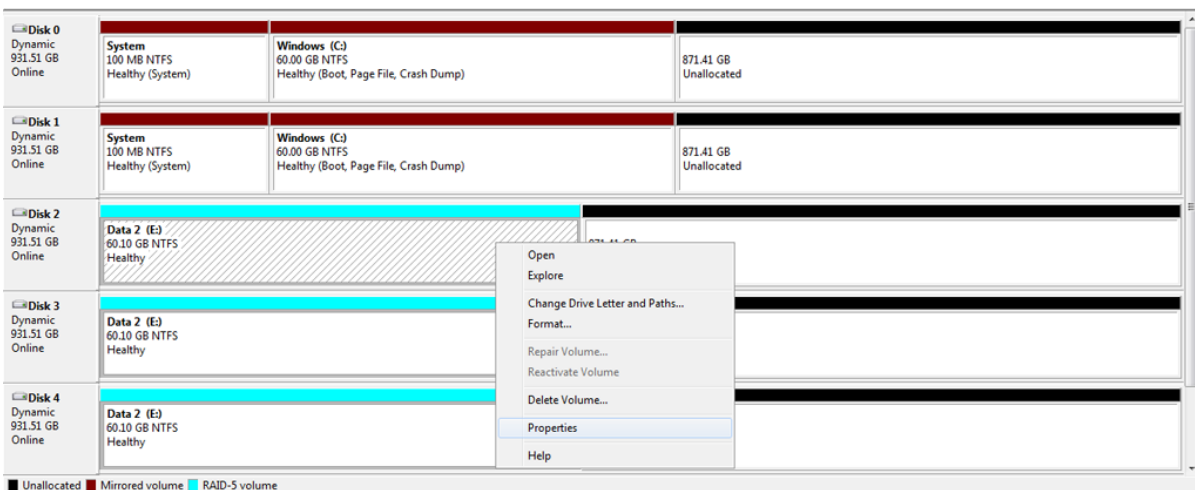
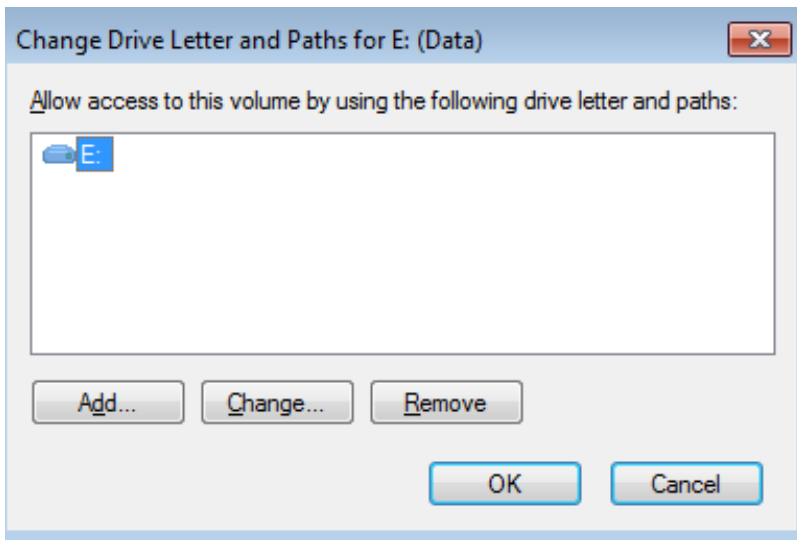2. The name of the volume, **Data 2**, is highlighted in the *General* tab.
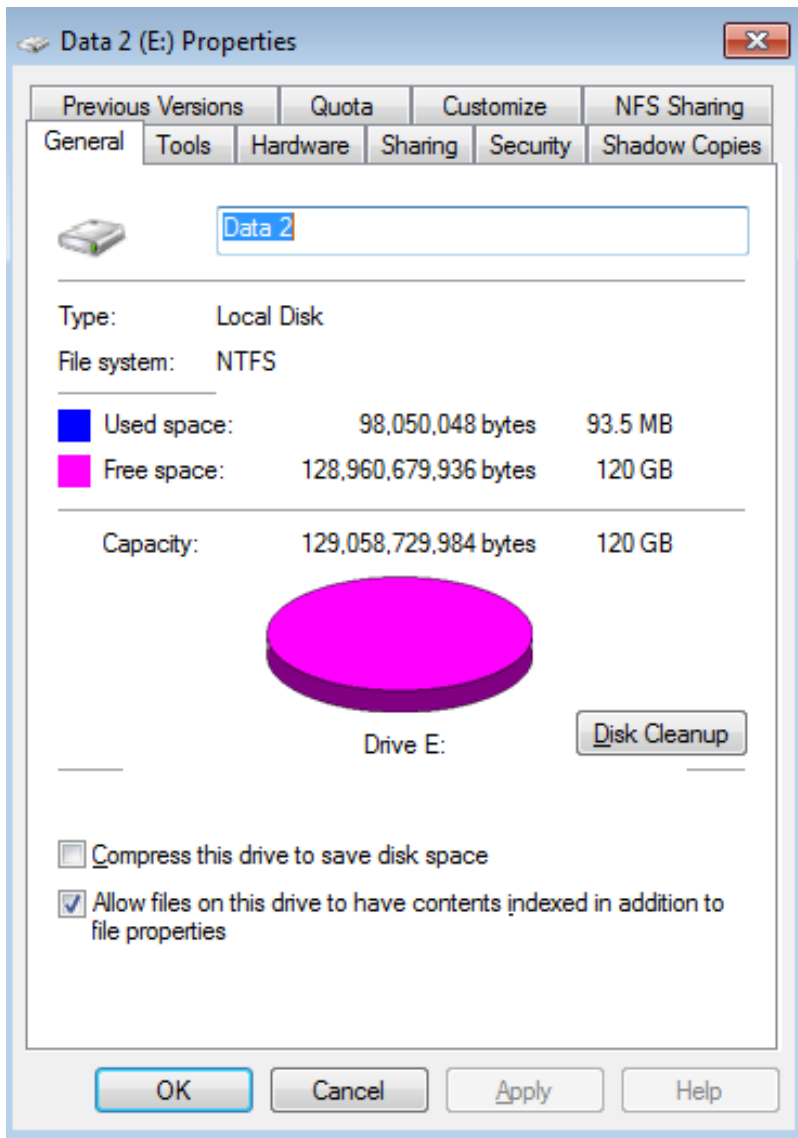
3. In this example, we are changing the name from **Data 2** to **Data**. You may use any name that suits your environment. Click **OK**.
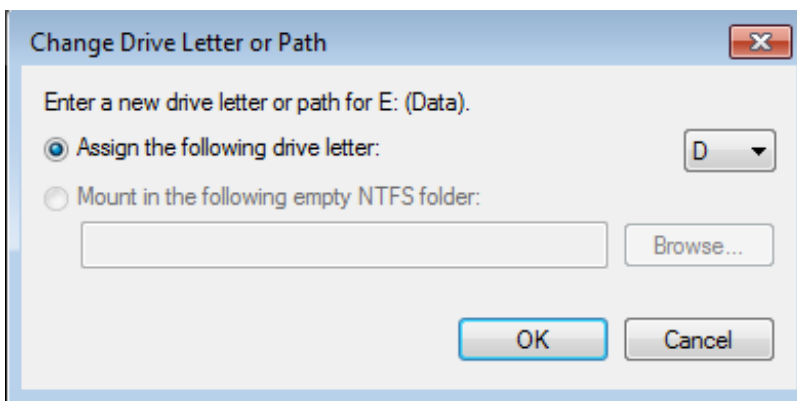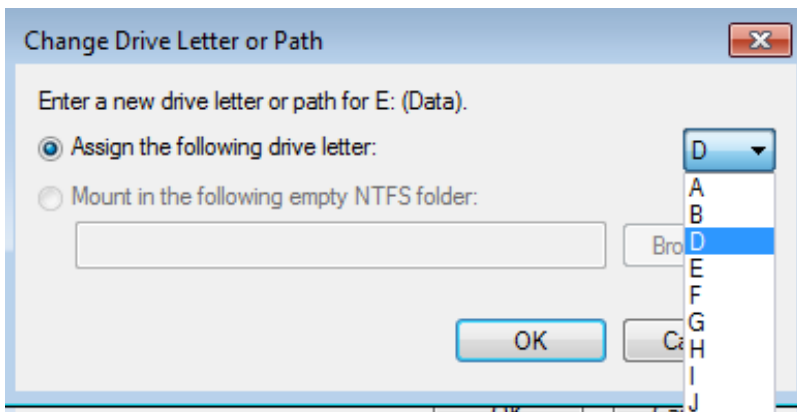
4. Right-click on any drive in the new Data [E] volume. Select **Change Drive Letter and Paths...**
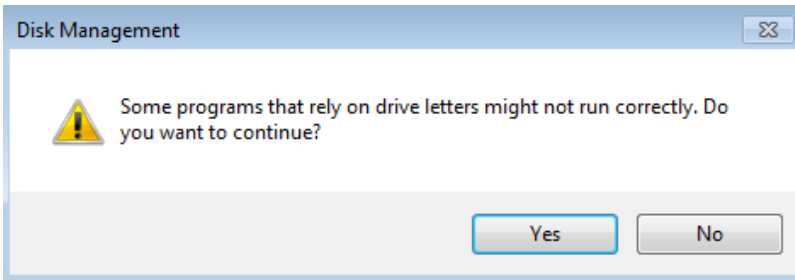

5. In the pop-up window, click on **Change...**

6. Click on the pulldown menu to choose the next letter in alphabetical order. In this case, **D**. Click **OK**.
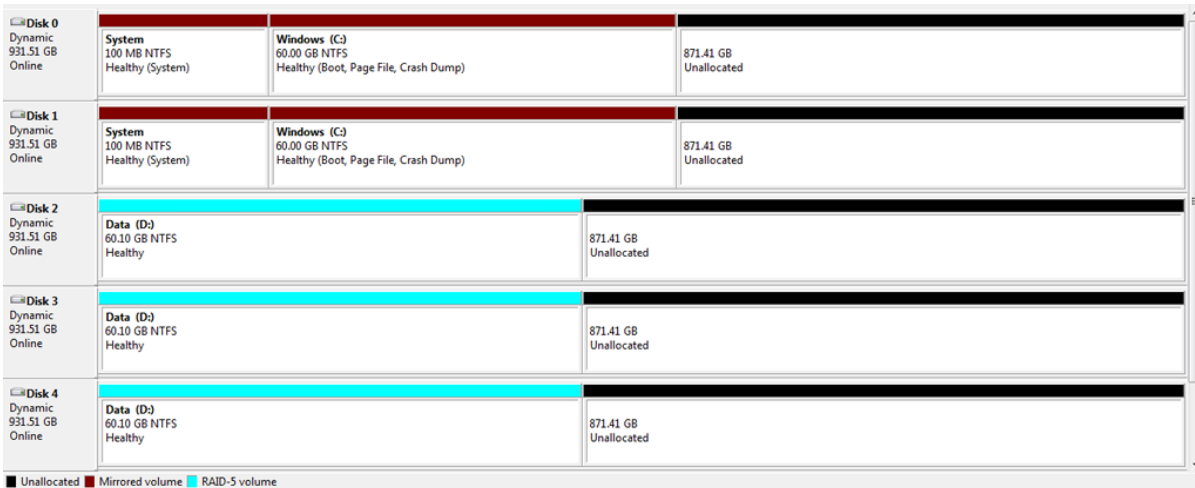

7. Click **Yes** at the prompt.

Disk Management

Some programs that rely on drive letters might not run correctly. Do you want to continue?

Yes   No

8. If the change in letter assignment does not take effect immediately, go to the the pulldown menu at the top of Disk Management to select **Action > Refresh**.
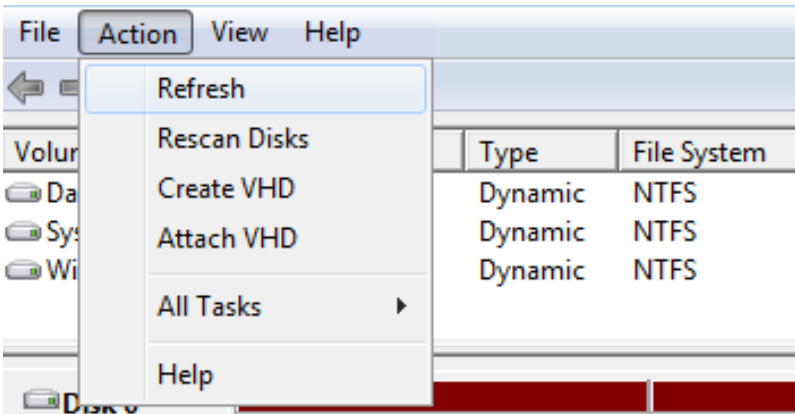
9. The volume should now be listed as *Data [D]*.

CREATING MULTIPLE RAID 5 VOLUMES

In this example, there are five disks and we do not want any of the volumes to exceed 2TB (2TB = 2000000MB). RAID 5 remains an optimal solution to protect data while maintaining a high percentage of the available storage. Before configuring the RAID 5 volumes, we must know the amount of storage to assign each disk in the array. To determine the capacity in MB, use the following formula:

2000000MB/N-1 (*N* equals the number of disks.)

Inserting the numbers for the 5big Office/Office+: 2000000/(5-1) = 2000000/4 = 500000

> **Technical note:** We have used a denominator of *N-1* since RAID 5 will offer 80% capacity in a five disk array.
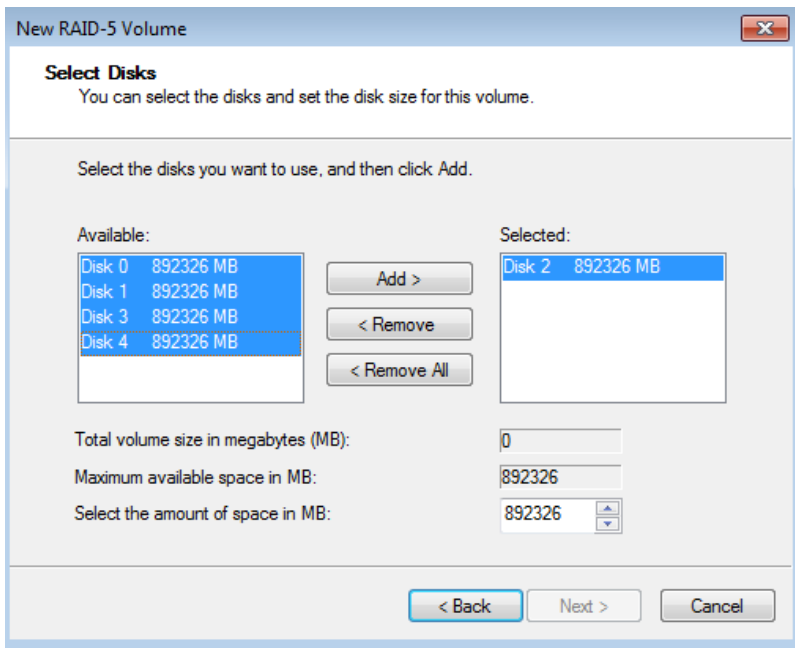
Follow the directions below to create the volumes.

1. Right-click on the **Unallocated** partition for Disk 2, Disk 3, or Disk 4. Select **New RAID-5 Volume...** Please note that right-clicking on Disk 0 and Disk 1 will not offer the option to create a RAID 5 volume.
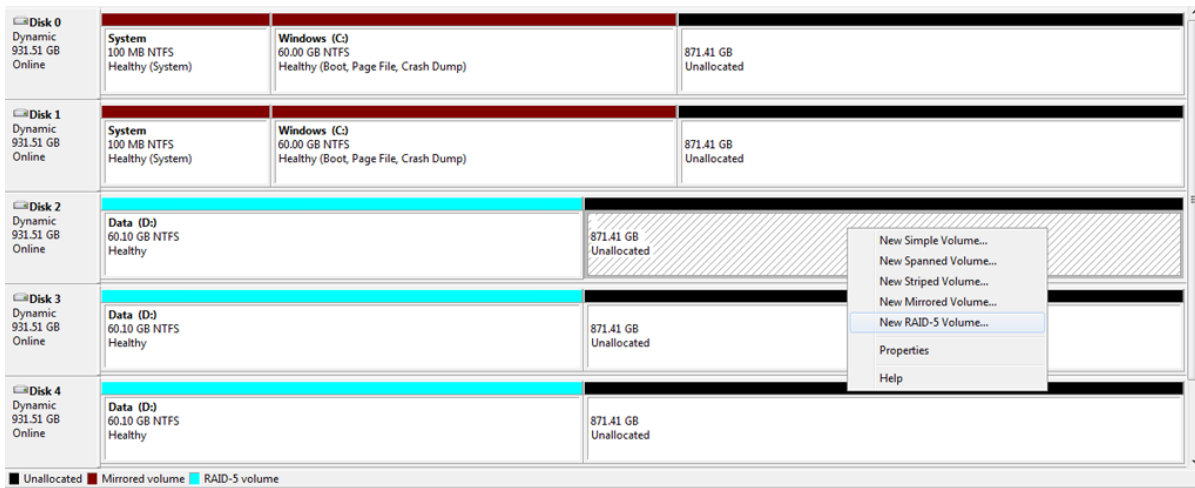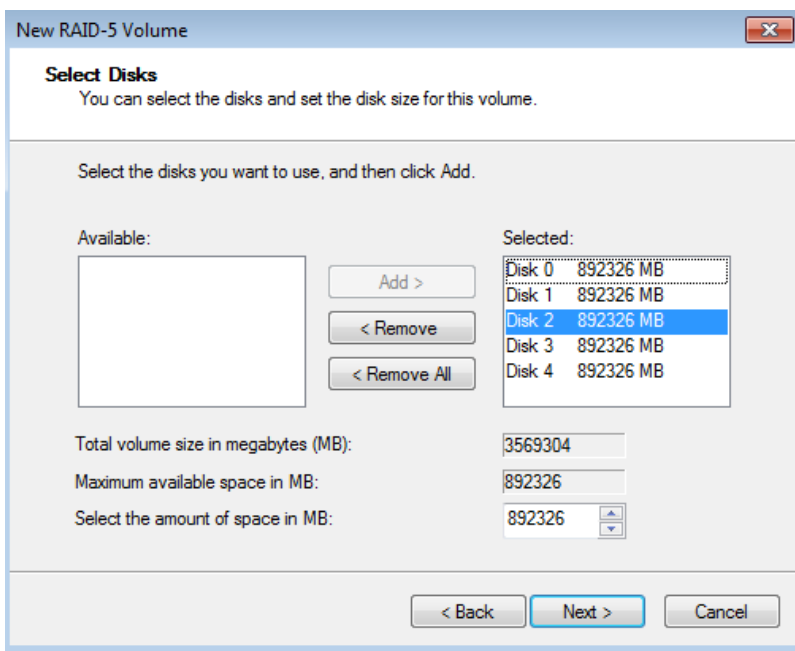

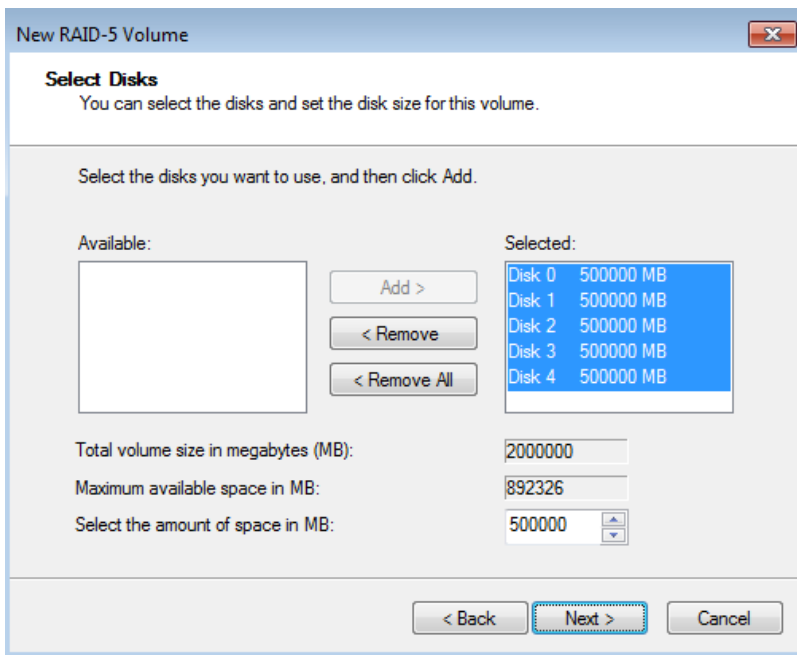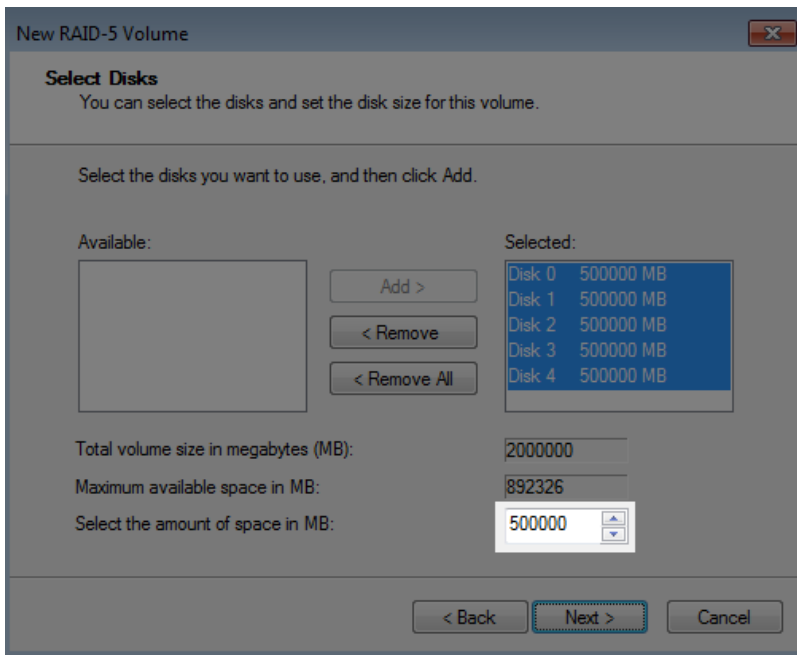2. The *New RAID-5 Volume Wizard* will appear. Click **Next**.
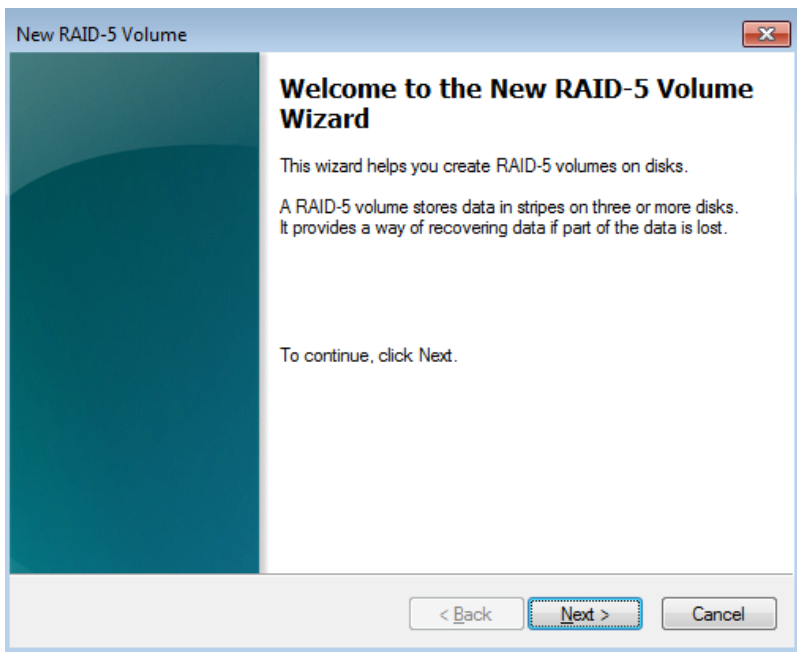
3. Select all the disks listed under *Available*.

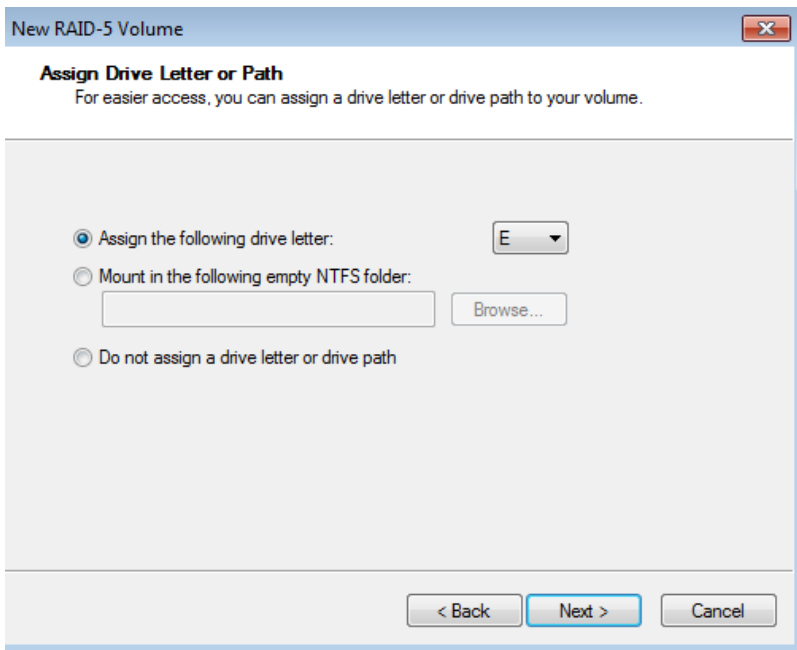4. Click **Add**. All the disks will be moved to the column *Selected*.

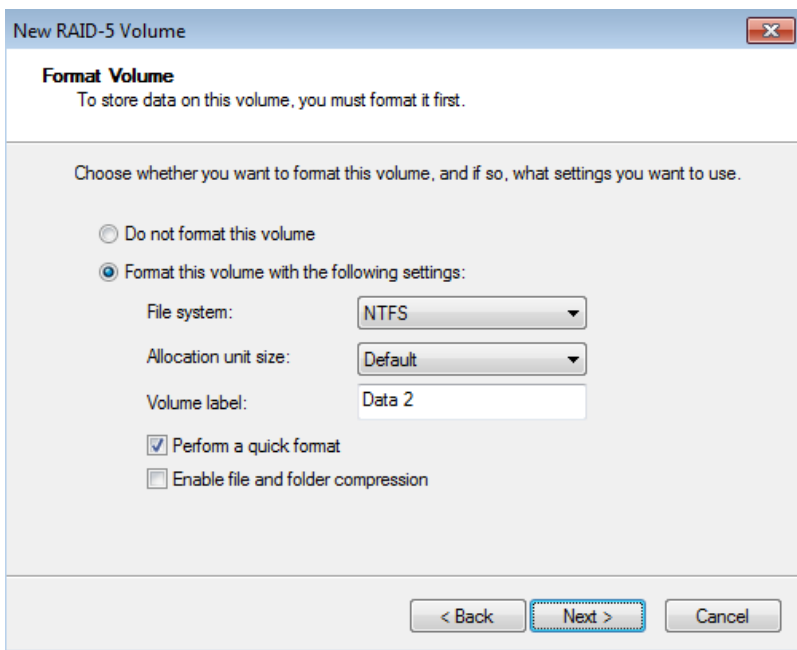5. In the field for **Select the amount of space in MB**, type **500000**.

6. Click **Next**.
7. Assign a drive letter. In this example, we have selected the next letter in alphabetical order, "E".

8. You may name the volume. In this example, we have named the volume *Data 2*. LaCie recommends keeping the defaults *NTFS* (file system) and *Perform a quick format*. Click **Next**.

9. Review your choices then click **Finish**.

You may create the next RAID 5 volume while *Data 2* is resynching:

1. Right-click on the **Unallocated** partition for Disk 2, Disk 3, or Disk 4. Select **New RAID-5 Volume...** Please note that right-clicking on Disk 0 and Disk 1 will not offer the option to create a RAID 5 volume.

2. The *New RAID-5 Volume Wizard* will appear. Click **Next**.

3. Select all the disks listed under *Available* and click **Add**. All the disks will be moved to the *Selected* column.

4. Since the amount of space assigned to each disk does not exceed 500000, we can click **Next** to move to the next step.
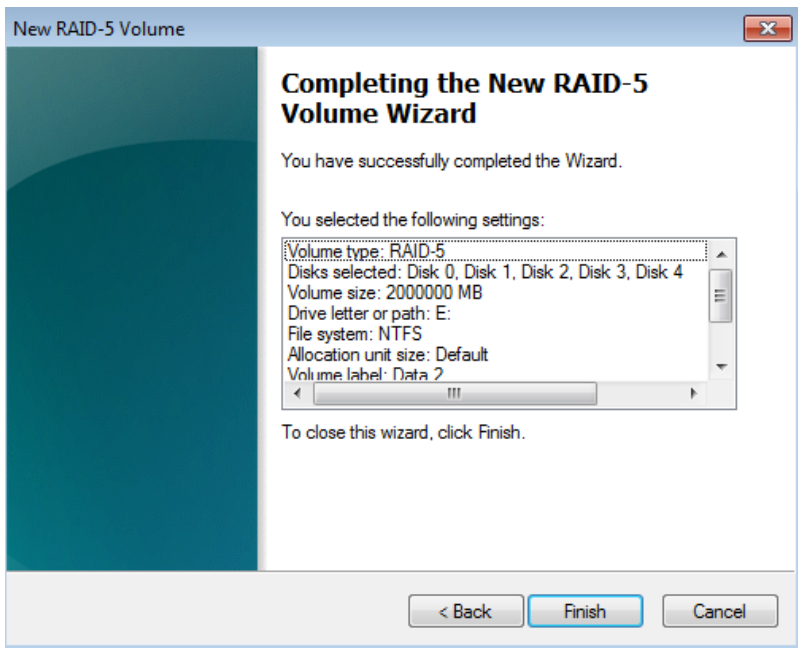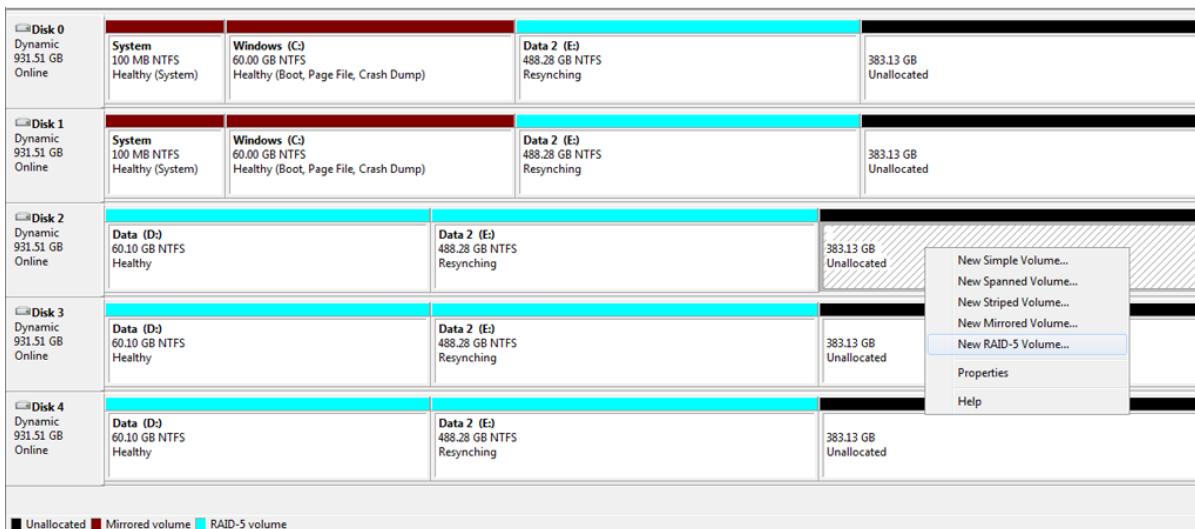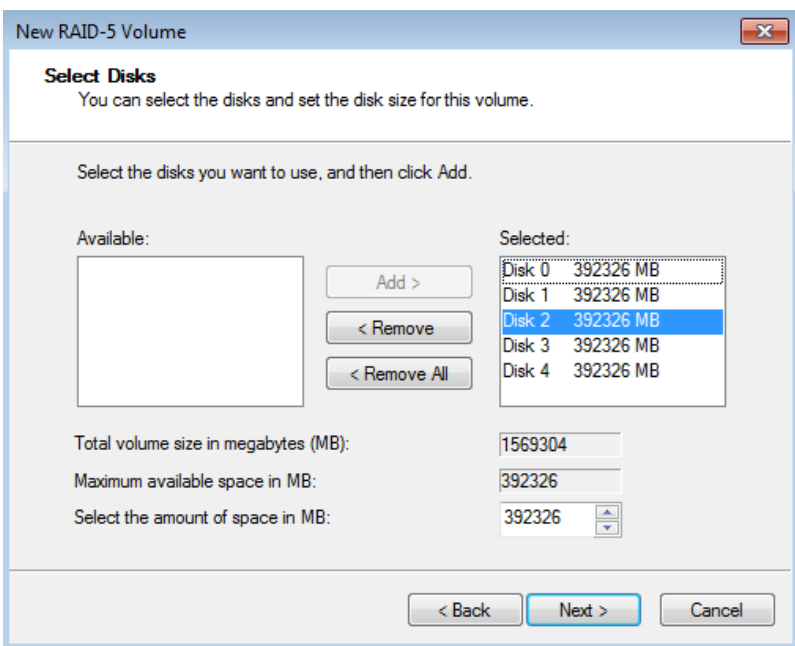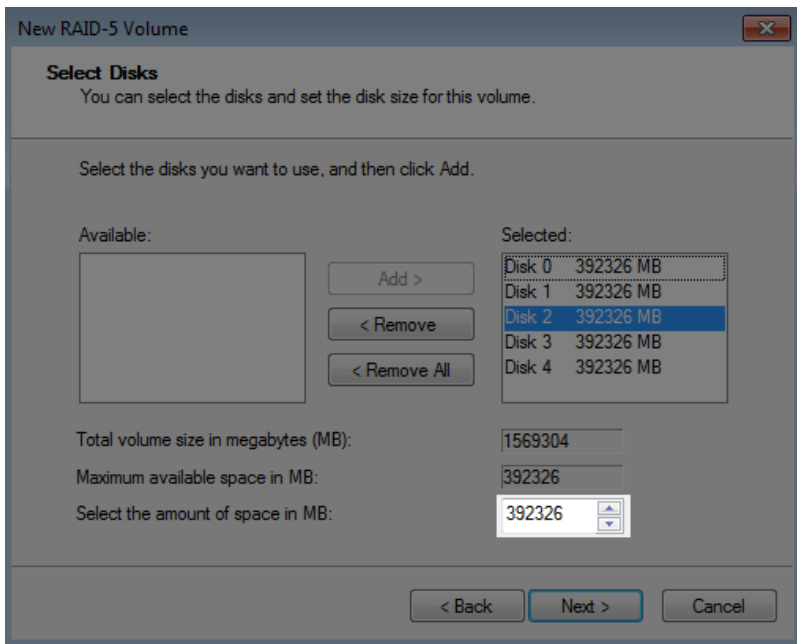
5. Assign a drive letter. In this example, we have selected the next letter in alphabetical order, "F".
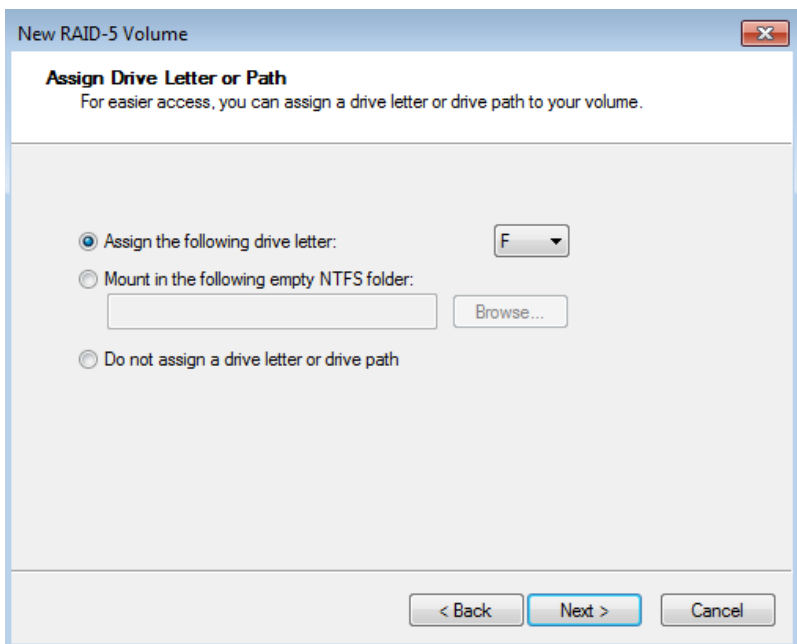
6. You may name the volume. In this example, we have named the volume *Data 3*. LaCie recommends keeping the defaults *NTFS* (file system) and *Perform a quick format*. Click **Next**.

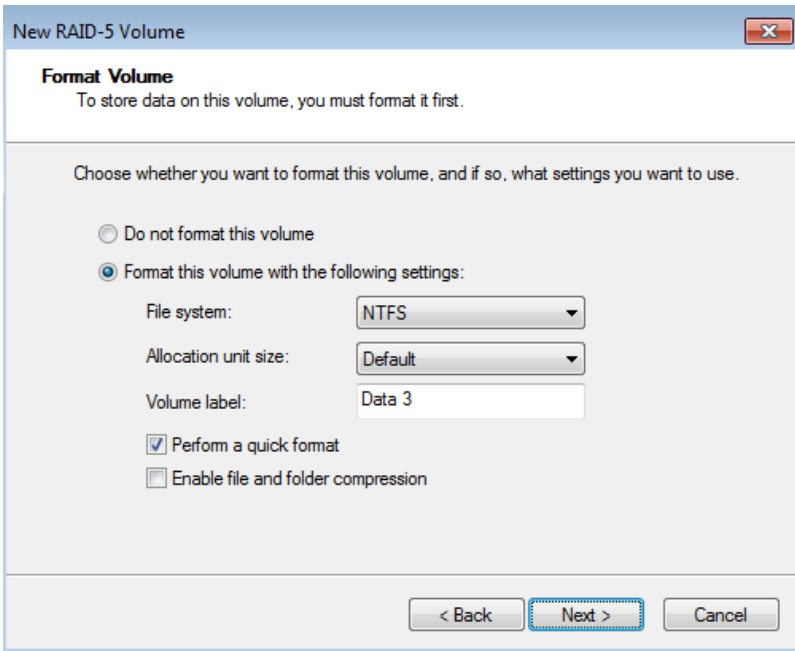7. Review your choices then click **Finish**.

Note on Shared Folders: Data 2 [E] and Data 3 [F] offer more capacity than the Windows Mirror and Data [D] volumes. LaCie recommends using Data 2 and Data 3 for your Shared Folders.

Note: Please keep the following in mind as Mirrored and/or RAID 5 volumes resync:

- Rebooting the 5big Office/Office+ while Disk Management is Resynching a Mirrored or RAID 5 volume will not harm the configuration or its data. However, since the process was interrupted, Disk Management will restart the resync at 0% once the 5big Office/Office+ has rebooted.
- Due to the capacity of the RAID 5 volume, rebooting while a resync is in progress could extend the operation for many hours.
- A volume that is in the midst of a resync may be accessed by workstations on the network. Users can perform common actions with the volume(s), such as reading files, writing files, or moving Shared Folders. However, performance will be degraded while Windows is resynching Mirrored and/or RAID 5 volumes.