NEW STORAGE VOLUME WIZARD

Build one or more volumes using the *New storage volume wizard*. You can select:

- **Quick setup**: Skip multiple configuration steps with LaCie SimplyRAID, LaCie's smart RAID configuration agent. SimplyRAID will review the amount of disks in the enclosure and the total storage to optimize data capacity and protect your data. To provide the most disk space for your data, *Quick setup* configures a SimplyRAID volume with single-disk security. Use Custom for SimplyRAID with double-disk security.
- **Custom:** Configure a volume using LaCie SimplyRAID or standard RAID models. *Custom* offers a wide range of RAID configurations:
  - SimplyRAID with double-disk security (minimum of four disks)
  - JBOD
  - RAID 0 (two disks minimum)
  - RAID 1 (two disks minimum for data protection)
  - RAID 1+Spare (three disks minimum). Additional steps required to add the spare.
  - RAID 5 (three disks minimum)
  - RAID 5+Spare (four disks minimum) Additional steps required to add the spare.
  - RAID 6 (four disks minimum)
  - RAID 6+Spare (five disks minimum). Additional steps required to add the spare.

SimplyRAID and spare disks: Since LaCie SimplyRAID optimizes storage capacity using all disks in a volume, it is not possible to add a spare disk to a SimplyRAID volume.

Important note on SimplyRAID with double-disk security:

- You must use **Custom** to configure five disks as SimplyRAID with double-disk security.
- The *New storage volume wizard* does not offer a migration path from SimplyRAID single-disk security to SimplyRAID double-disk security.

Important info on creating a single-disk volume: Single-disk volumes can be created with expansion in mind. For example, you can launch the *New storage volume wizard* to create a single-disk volume using SimplyRAID, JBOD, or RAID 1. Though the volume will not provide data protection in a single-disk configuration, it is prepared for expansion when you add one or more disks to the enclosure. If you intend to expand the volume to four or more disks, it is recommended that you create the volume using SimplyRAID since RAID 1 cannot reach beyond three disks.

Important info: Backing up data stored on your LaCie NAS to desktop storage and/or another NAS will help keep critical files safe from hard drive or hardware failure. This is especially true for volumes that are not configured for RAID protection. Therefore, it is highly recommended that you perform frequent backups. See Backup Jobs for detailed instructions on how to back up your LaCie NAS.

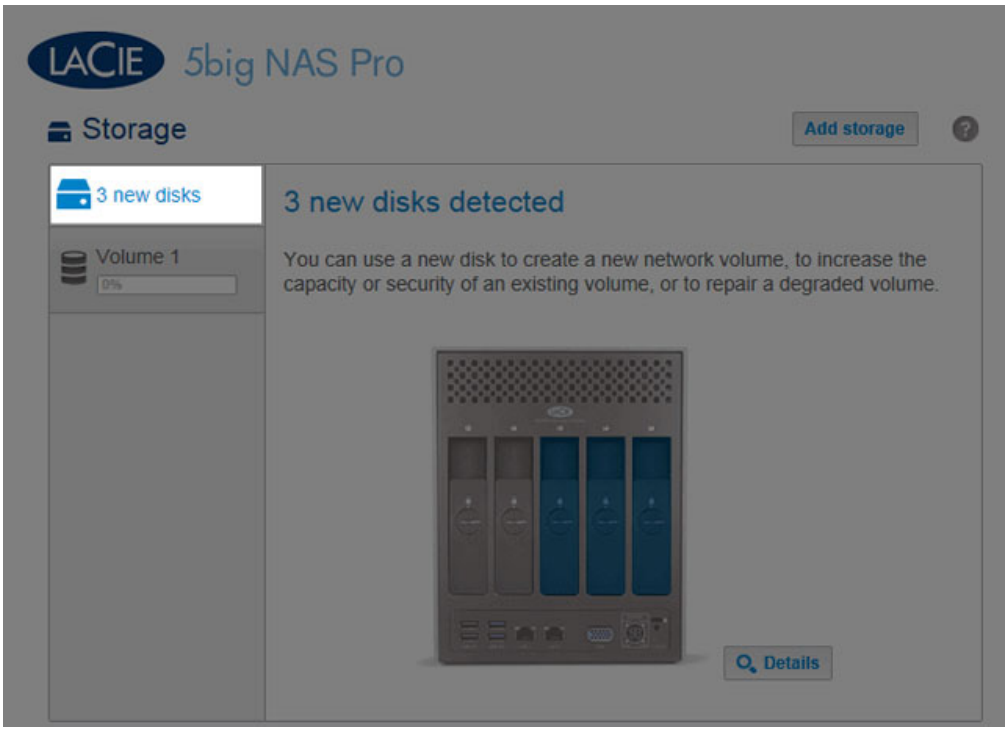
NEW STORAGE VOLUME WIZARD STEPS

The default names for newly created volumes are *Volume 1*, *Volume 2*, etc. For instructions on how to change the name of the volume, see Volume Tools.

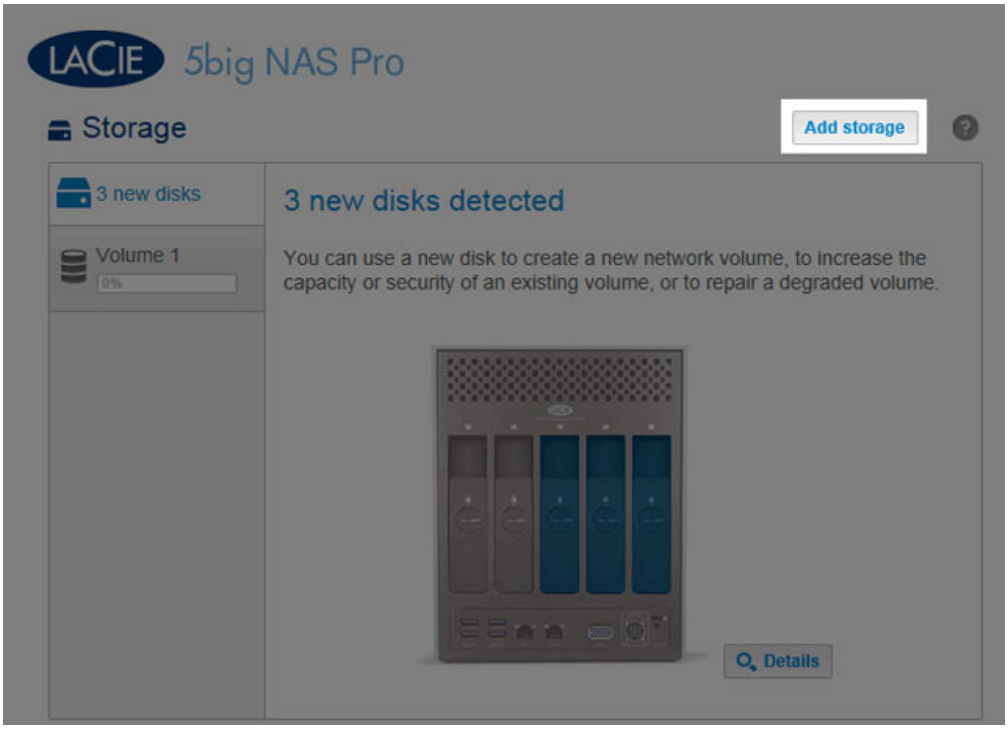
Quick setup

Insert disks into the enclosure before following the directions below. For instructions, see Remove/Insert a Hard Disk or Connect to the Network: Diskless LaCie 5big NAS Pro.

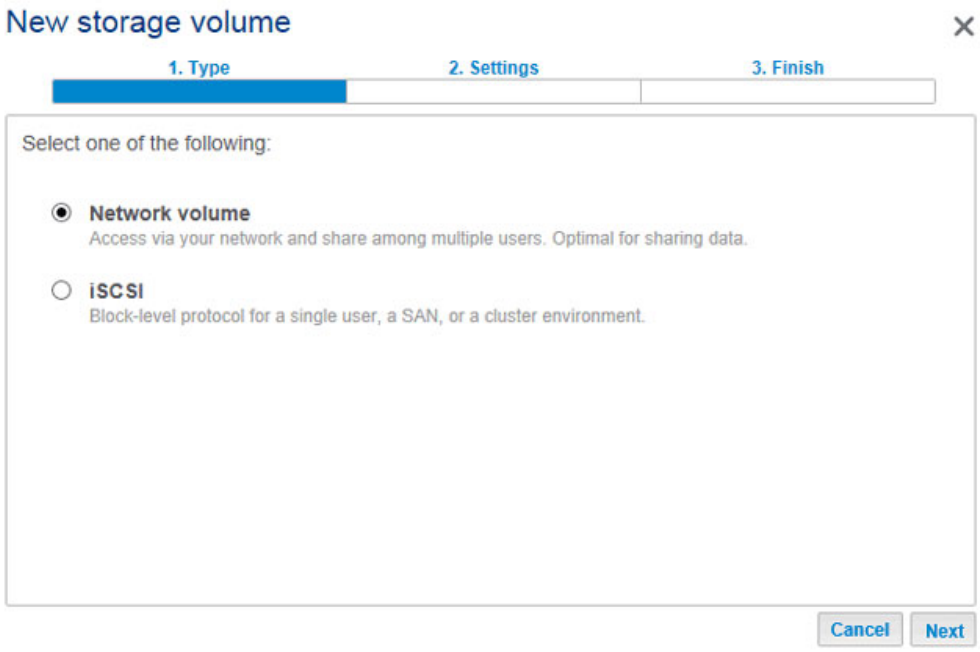
1. Select the new disk(s) on the top of the left-hand column.



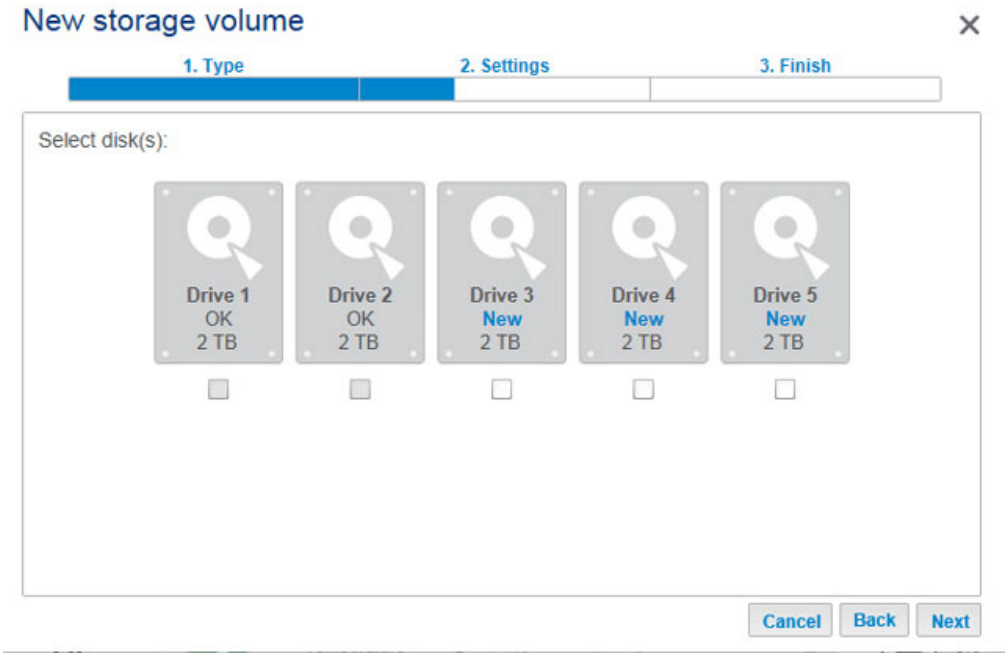
2. Choose the **Add storage** button to launch the *New storage volume* wizard.

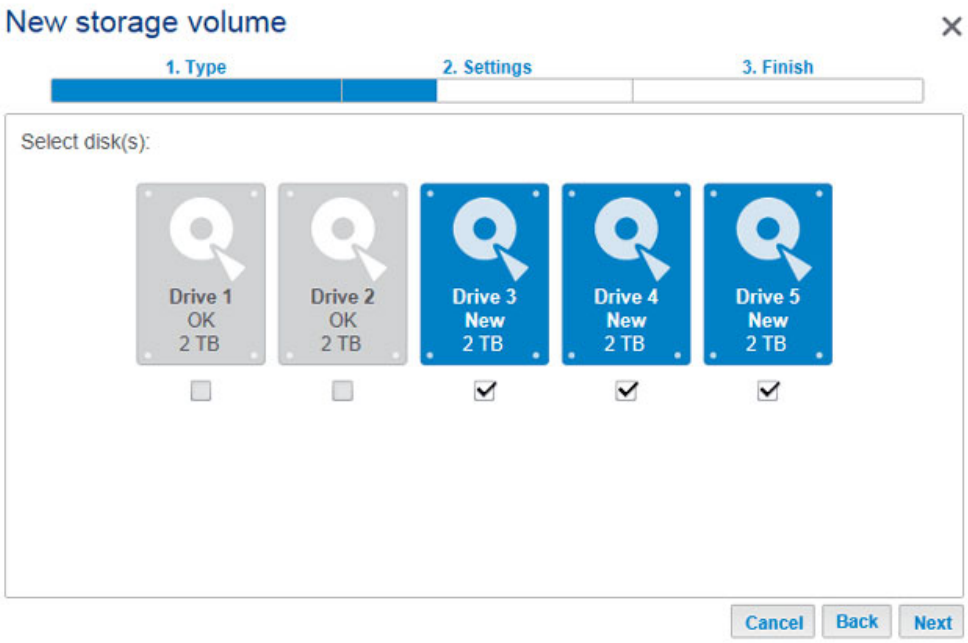


3. Select **Network volume**, then choose **Next**.

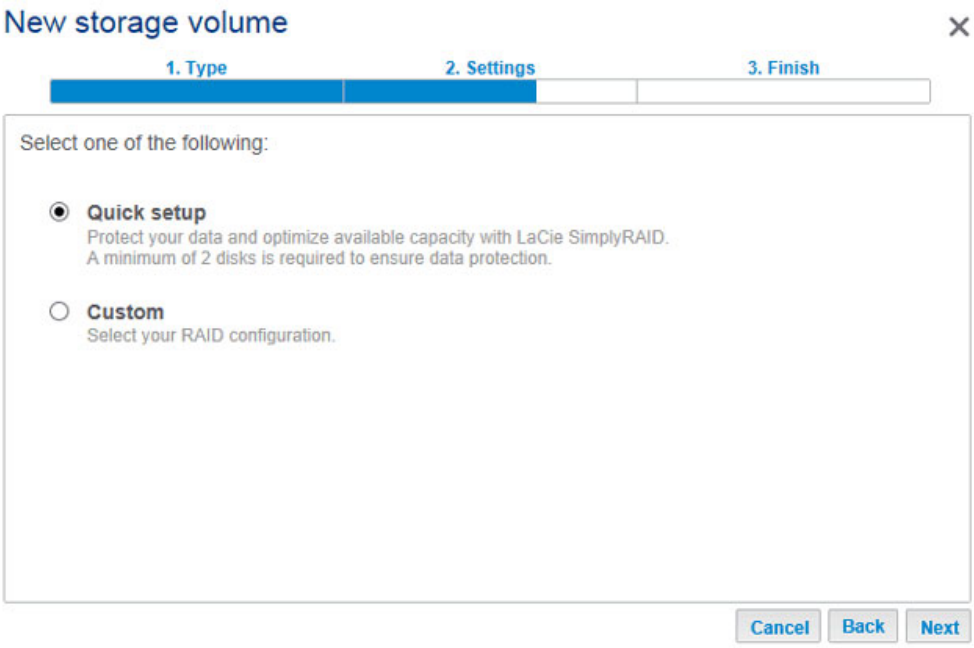


4. The *Select disks* window lists all the disks in the enclosure. Grey disks are being used by one or more existing volumes and cannot be selected. White disks are available for the new volume. Select the box under each disk that you want to use for the new volume then choose **Next**. All data on the disks will be deleted to create the RAID configuration.

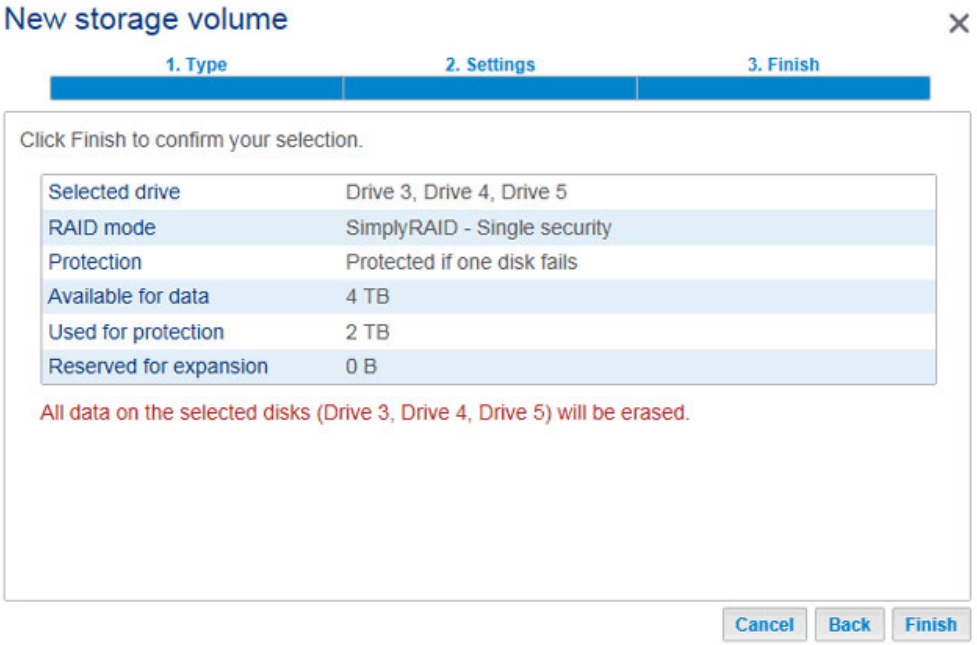




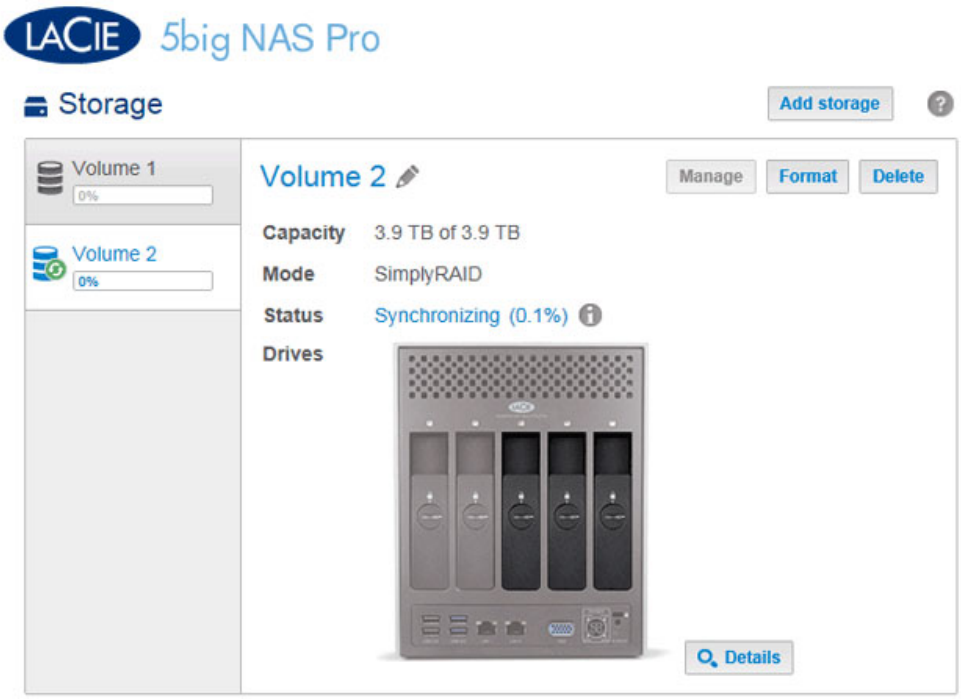
5. Select **Quick setup** to create a SimplyRAID volume to optimize your storage for data and protection. With two or more disks, SimplyRAID will create a RAID volume using single-disk security. If you choose *Custom*, refer to the instructions below. Choose **Next** to continue.



6. Review the summary window then choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the SimplyRAID volume.



7. The amount of time to synchronize the volume depends upon the total capacity of your disks. However, you can start using the volume immediately. See Shares for instructions on how to create new shares on the volume to store and share data.


5big NAS Pro
Storage
Add storage
Volume 1
0%
Volume 2
0%
Volume 2
Manage
Format
Delete
Capacity
3.9 TB of 3.9 TB
Mode
SimplyRAID
Status
Synchronizing (0.1%)
Drives
Details

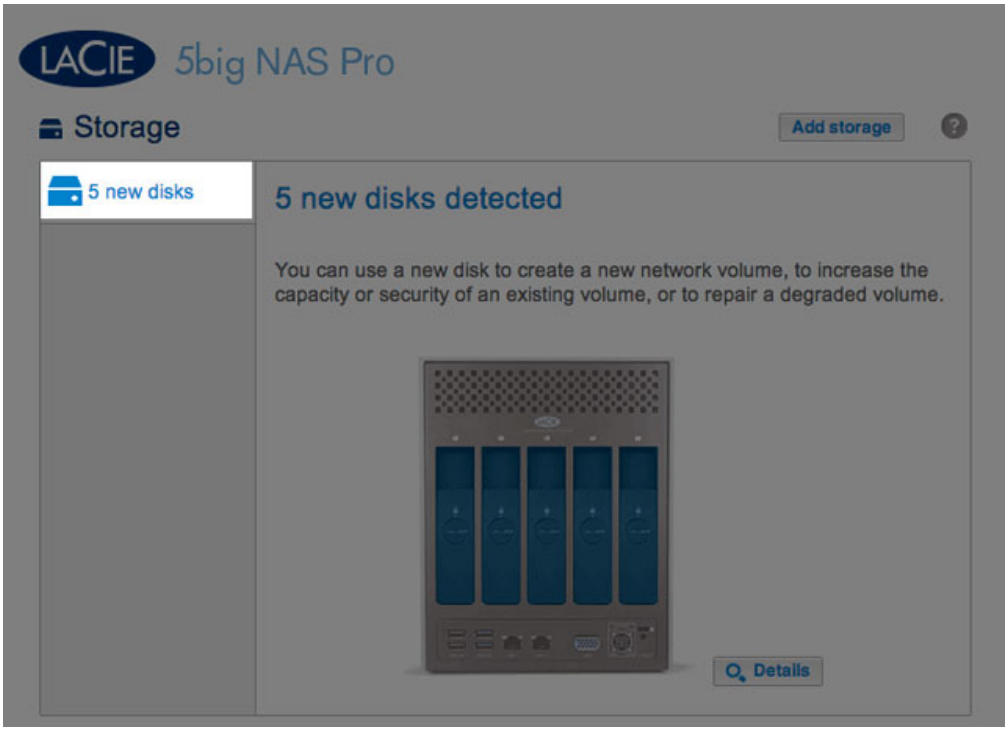
Custom

Your options to select the level of RAID are predicated upon the number of disks in your array. For example, a three-disk configuration allows you to select from LaCie SimplyRAID, JBOD, RAID 0, RAID 1, or RAID 5. A four- or five-disk configuration offers LaCie SimplyRAID, JBOD, RAID 0, RAID 5, or RAID 6.

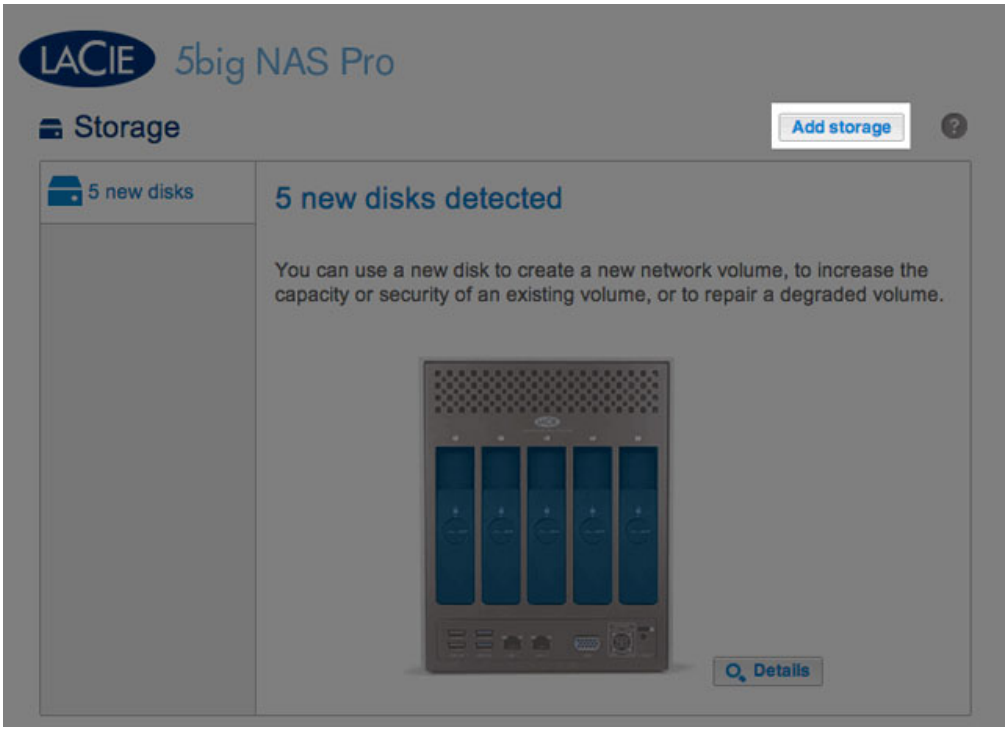
Adding a spare: If you intend to create a volume with a spare drive, you must leave at least one hard drive free. For example, a four-disk RAID 6 array with spare would require that you create the RAID 6 with the first four disks (from left to right) before moving to the next section to add the fifth hard disk as the spare.

Install disks into the enclosure before following the directions below. For instructions, see Connect to the Network: Diskless LaCie 5big NAS Pro.

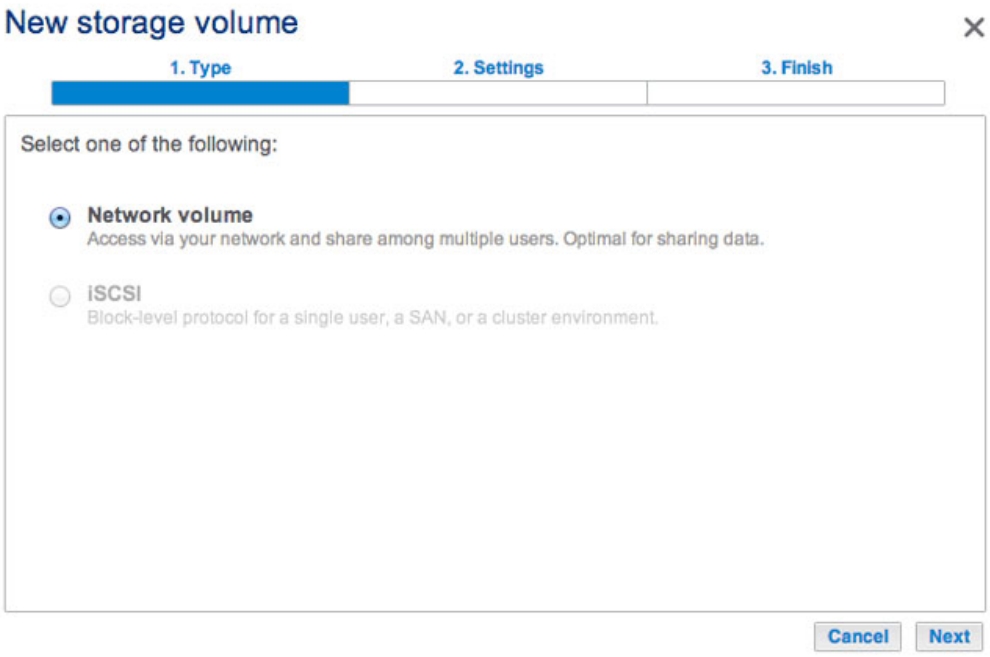
1. Select the new disks at the top of the left-hand column.



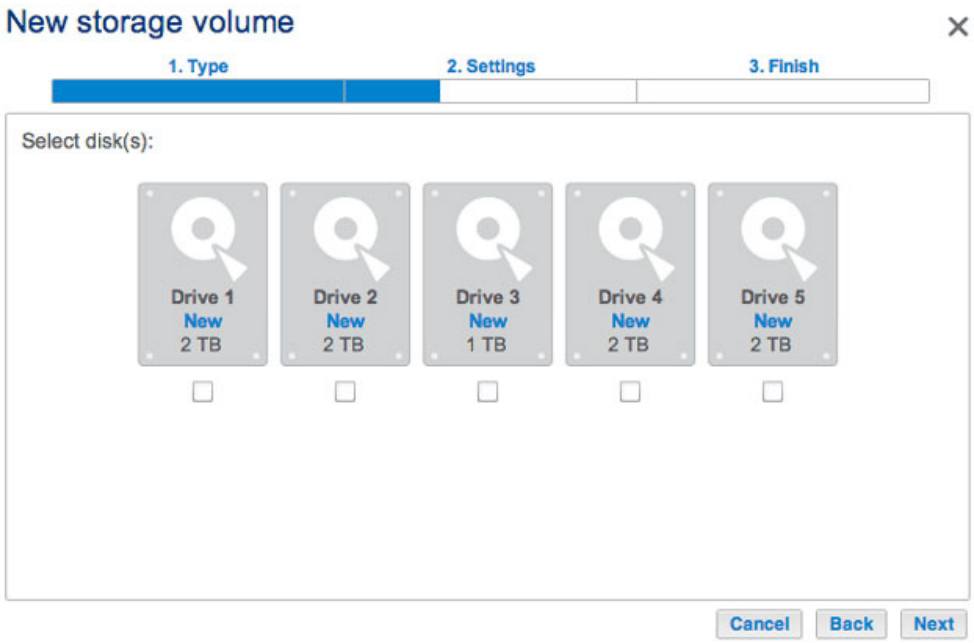
2. Choose the **Add storage** button to launch the *New storage volume* wizard.

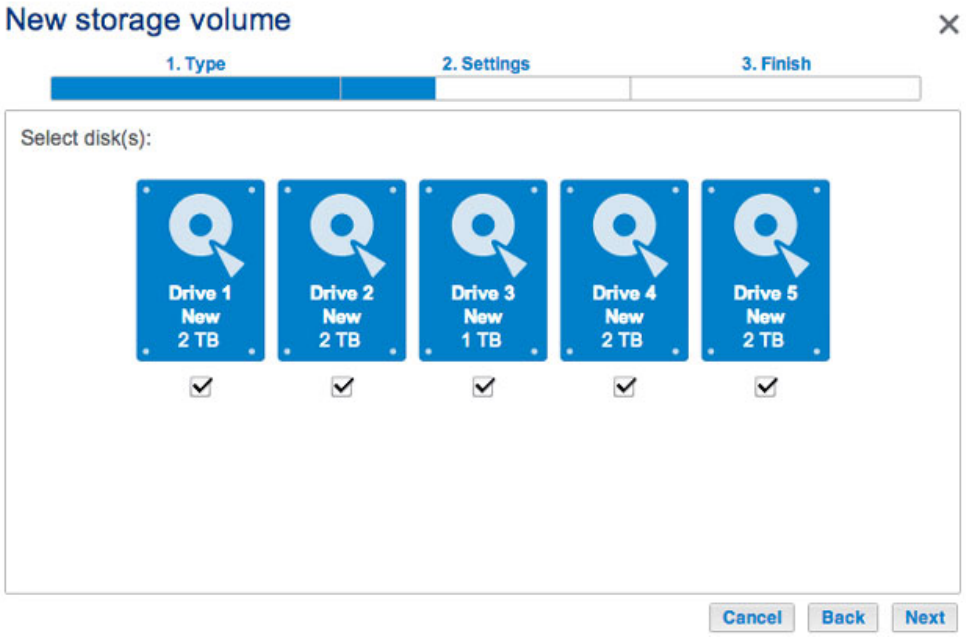


3. Select **Network volume**, then choose **Next**.

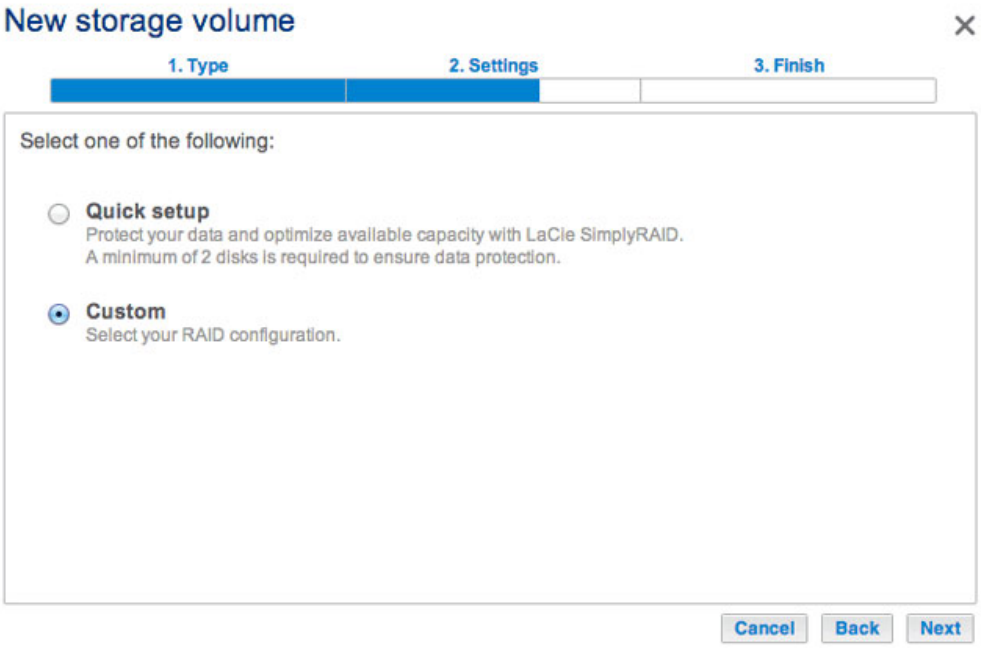


4. The *Select disks* window lists all the disks in the enclosure. Grey disks are being used by one or more existing volumes and cannot be selected. White disks are available for the new volume. Select the box under each disk that you want to use for the new volume then choose **Next**. All data on the disks will be deleted to create the RAID configuration.

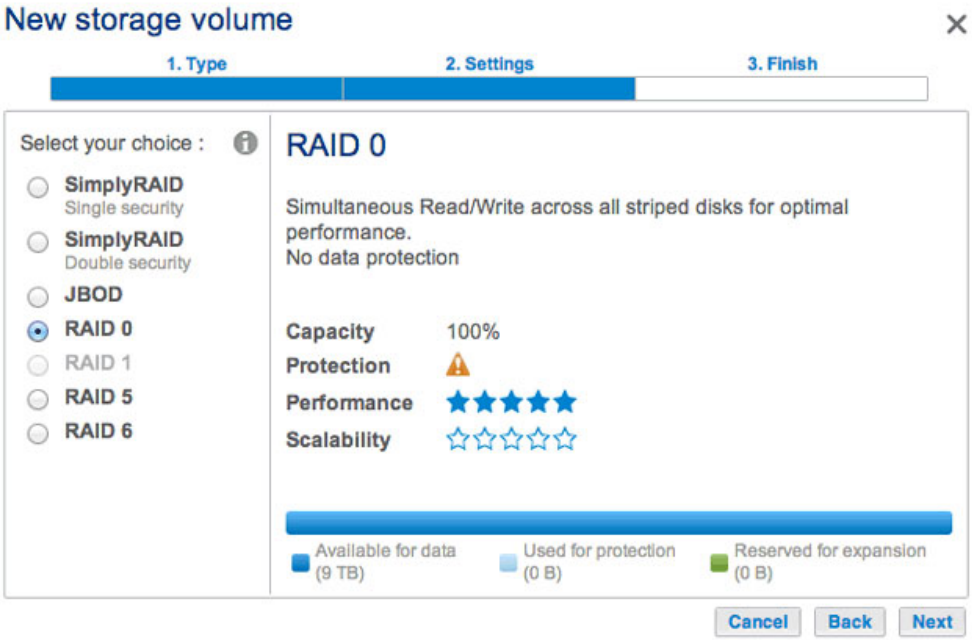




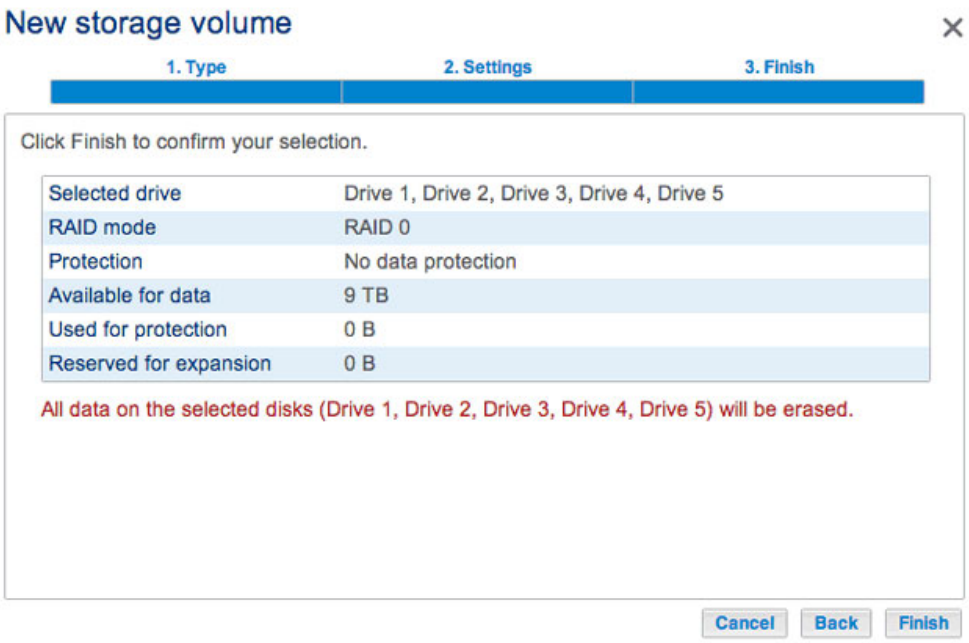
5. Select **Custom** then choose **Next**.



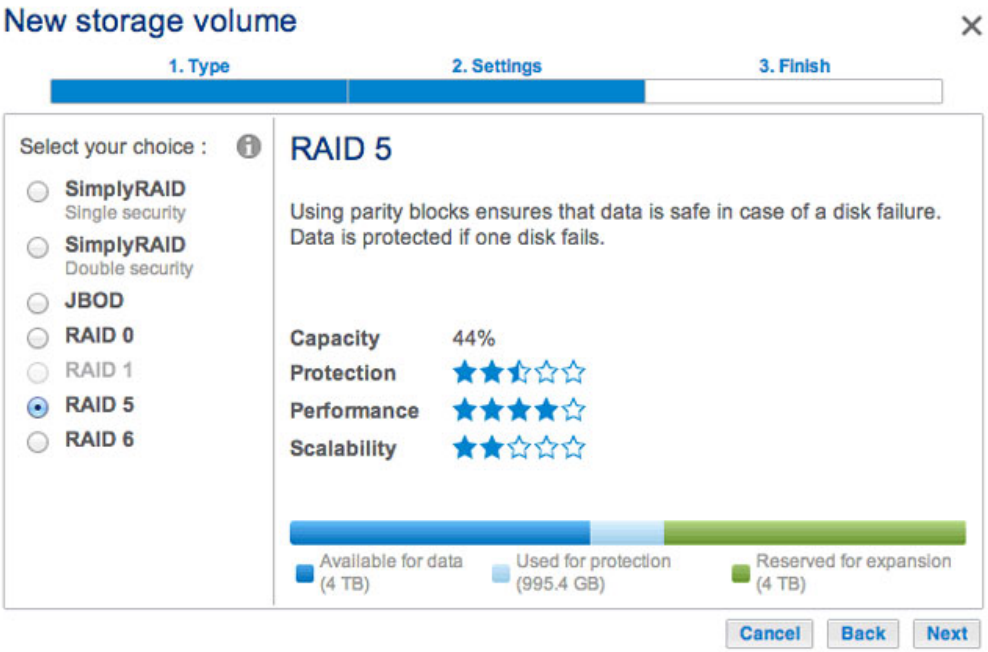
6. The RAID selection window helps you to select the optimal configuration for your environment:
   - Select a RAID mode's radio button to view an explanation of its strengths and weaknesses.



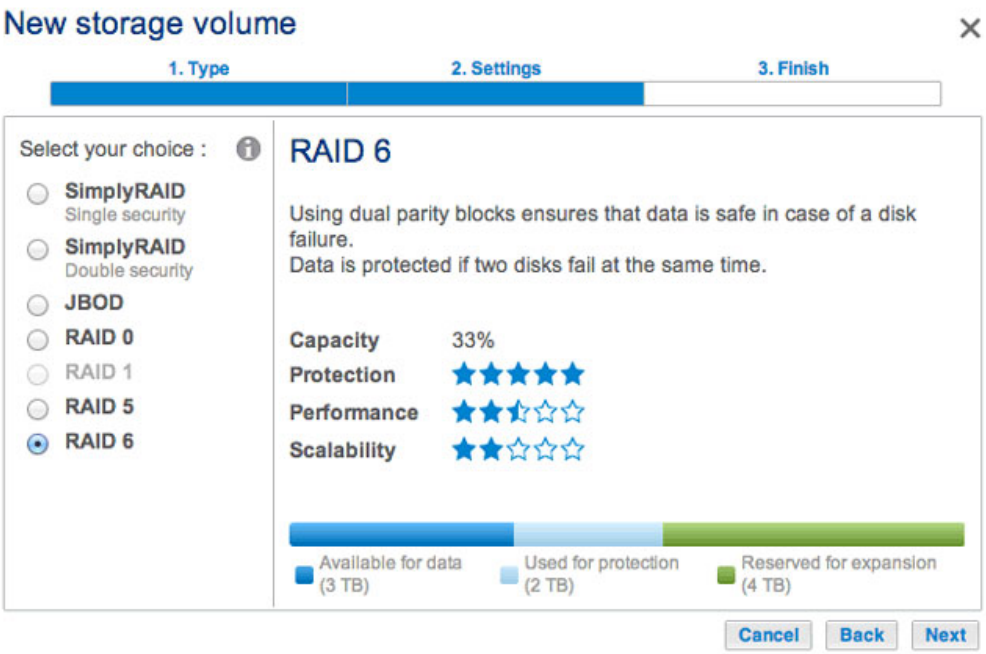
SimplyRAID Double security


New storage volume
1. Type
2. Settings
3. Finish
Click Finish to confirm your selection.
Selected drive
Drive 1, Drive 2, Drive 3, Drive 4, Drive 5
RAID mode
RAID 0
Protection
No data protection
Available for data
9 TB
Used for protection
0 B
Reserved for expansion
0 B
All data on the selected disks (Drive 1, Drive 2, Drive 3, Drive 4, Drive 5) will be erased.
Cancel
Back
Finish

RAID 0


New storage volume
1. Type
2. Settings
3. Finish
Select your choice :
SimplyRAID
Single security
SimplyRAID
Double security
JBOD
RAID 0
RAID 1
RAID 5
RAID 6
RAID 5
Using parity blocks ensures that data is safe in case of a disk failure.
Data is protected if one disk fails.
Capacity
44%
Protection
Performance
Scalability
Available for data
(4 TB)
Used for protection
(995.4 GB)
Reserved for expansion
(4 TB)
Cancel
Back
Next

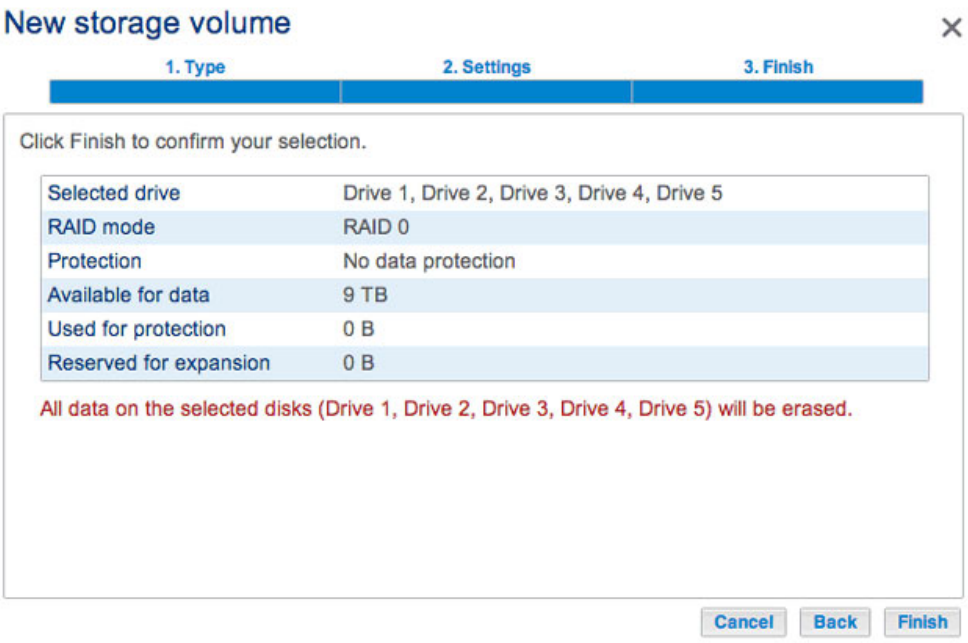
RAID 5



RAID 6

- Use the cursor to choose the grey *i* tooltip to see a graphic summary of the strengths and weaknesses of each level of RAID.

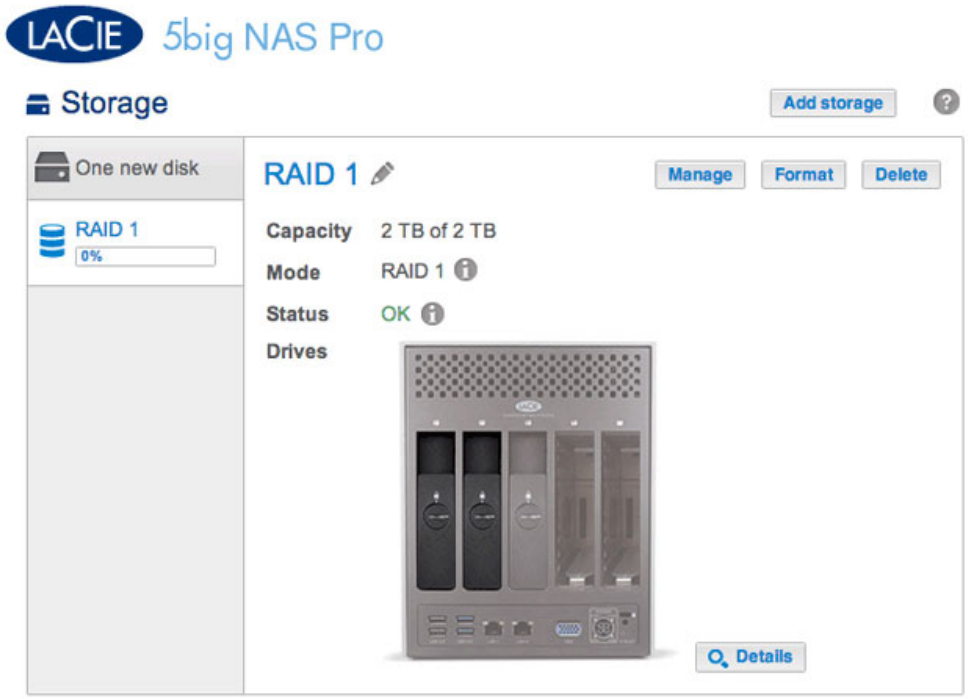
7. Select the level of RAID that you want then choose **Next**. Note, if you are reconfiguring an existing RAID, the new mode will erase files on the shares but your Dashboard configuration will not be affected.
8. Review the summary window then choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the volume.


New storage volume
1. Type
2. Settings
3. Finish
Click Finish to confirm your selection.
Selected drive
Drive 1, Drive 2, Drive 3, Drive 4, Drive 5
RAID mode
RAID 0
Protection
No data protection
Available for data
9 TB
Used for protection
0 B
Reserved for expansion
0 B
All data on the selected disks (Drive 1, Drive 2, Drive 3, Drive 4, Drive 5) will be erased.
Cancel
Back
Finish

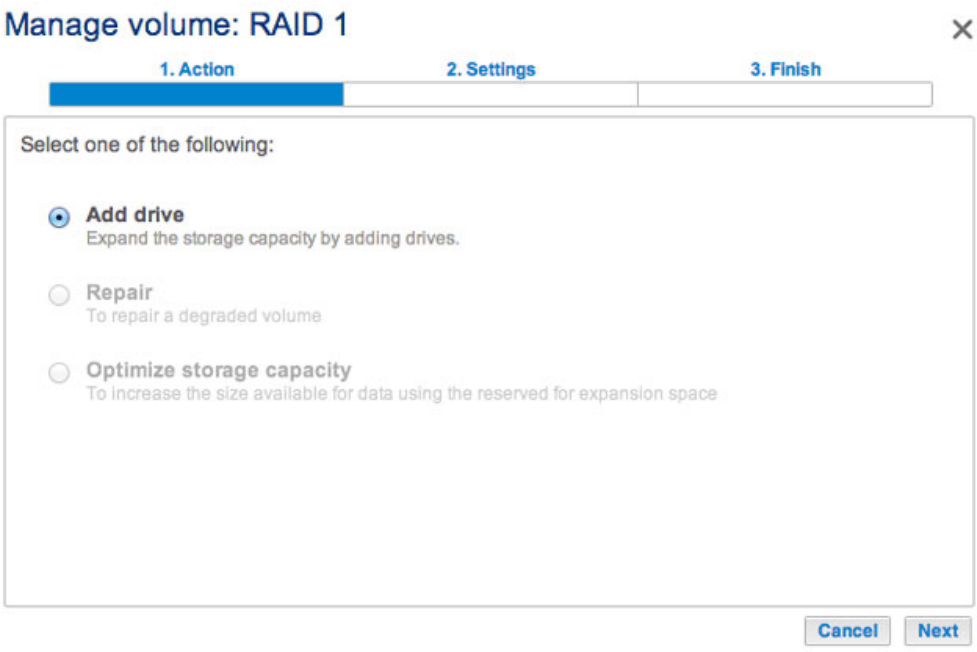
Custom+Spare

Before adding a spare hard drive, you must follow the instructions above (**Custom**) to create the RAID volume. When creating the volume, leave a minimum of one hard drive free for the spare. For example, a four-disk RAID 6 volume with spare would require that you create the RAID 6 with the first four disks (from left to right) before reviewing this section to add the fifth hard disk as the spare. You can follow the directions below with RAID 1, RAID 5, or RAID 6 volumes.

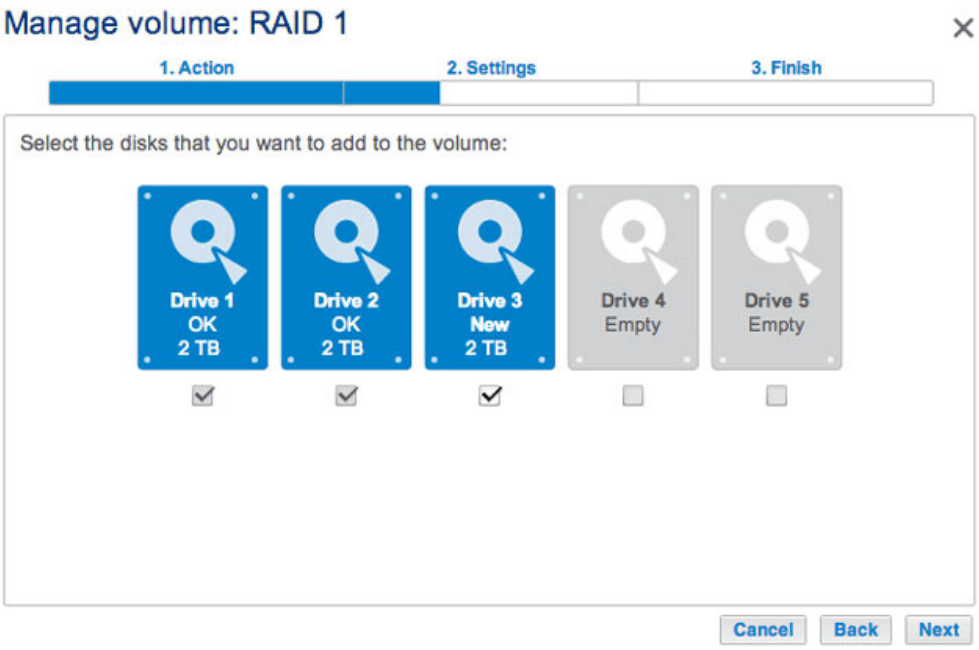
1. Insert the spare hard drive(s) into the LaCie 5big NAS Pro (see Remove/Insert a Hard Disk for instructions). The **Dashboard > Storage** should display at least one *New* hard drive.



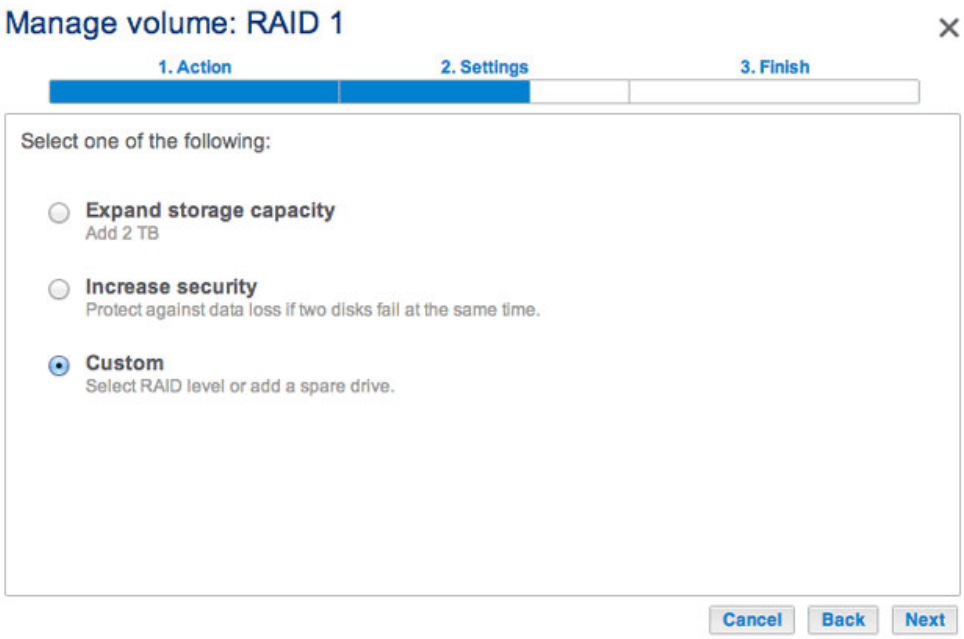
2. Choose **Manage**.
3. Select **Add drive** and choose **Next**.



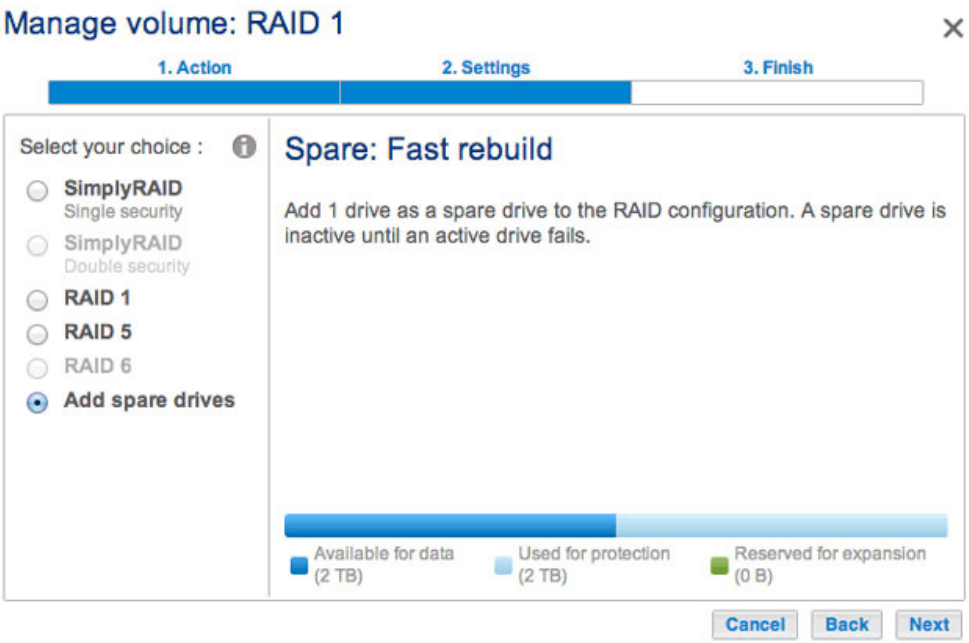
4. Check the box under the *New* hard drive(s) and choose **Next**.



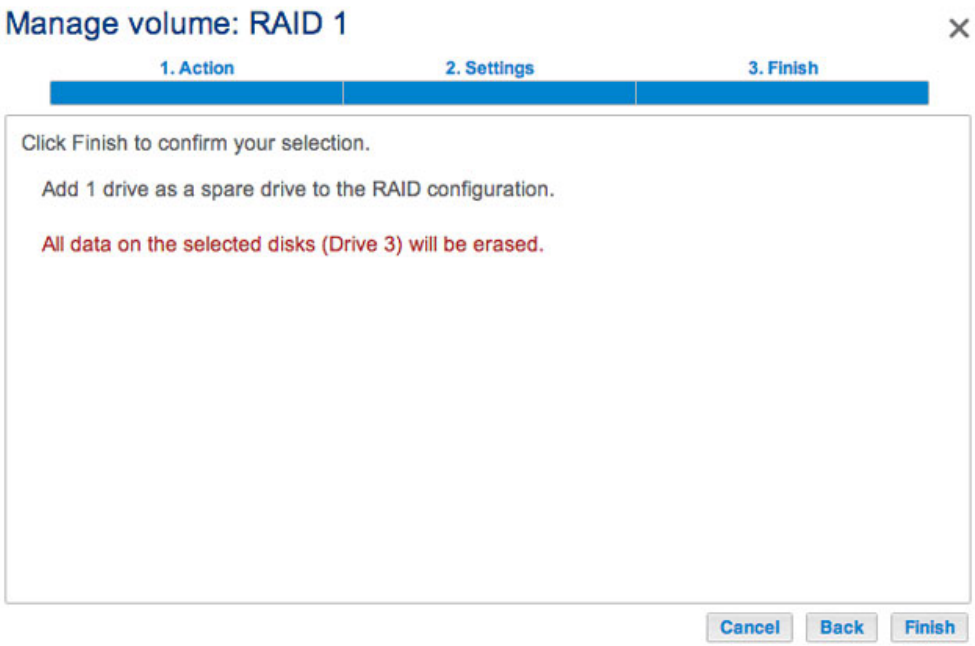
5. Select **Custom** and choose **Next**.



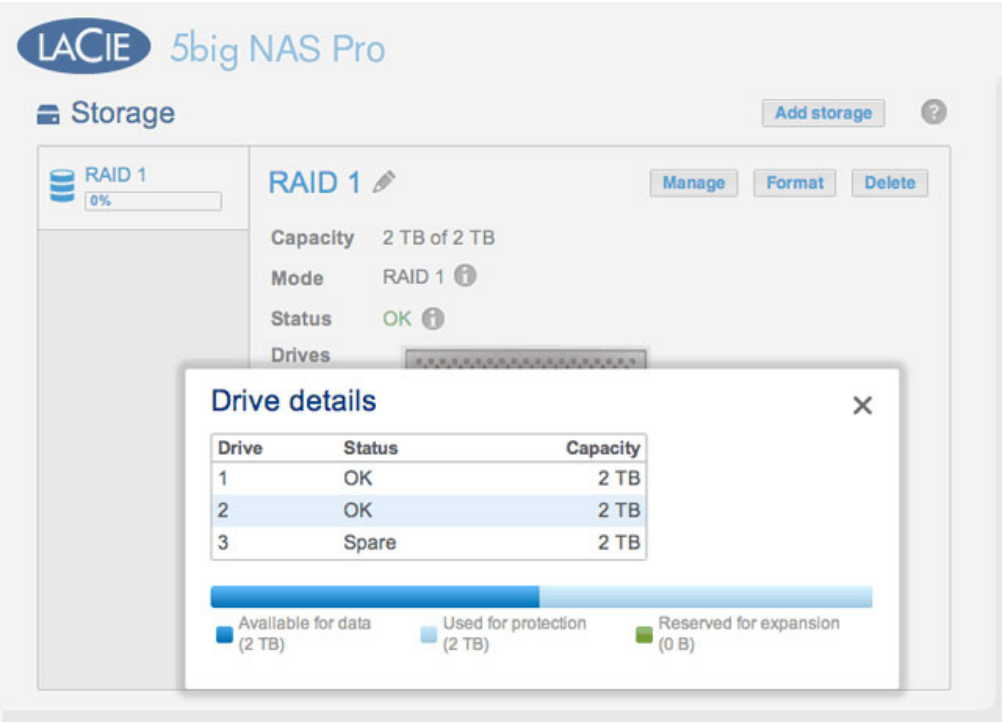
6. Select **Add spare drives** and choose **Next**.



7. Review the summary and choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the volume.



8. The *Spare* is now available.


LACIE
5big NAS Pro
Storage
Add storage
RAID 1
0%
RAID 1
Manage
Format
Delete
Capacity
2 TB of 2 TB
Mode
RAID 1
Status
OK
Drives
Drive details
Drive
Status
Capacity
1
OK
2 TB
2
OK
2 TB
3
Spare
2 TB
Available for data
(2 TB)
Used for protection
(2 TB)
Reserved for expansion
(0 B)

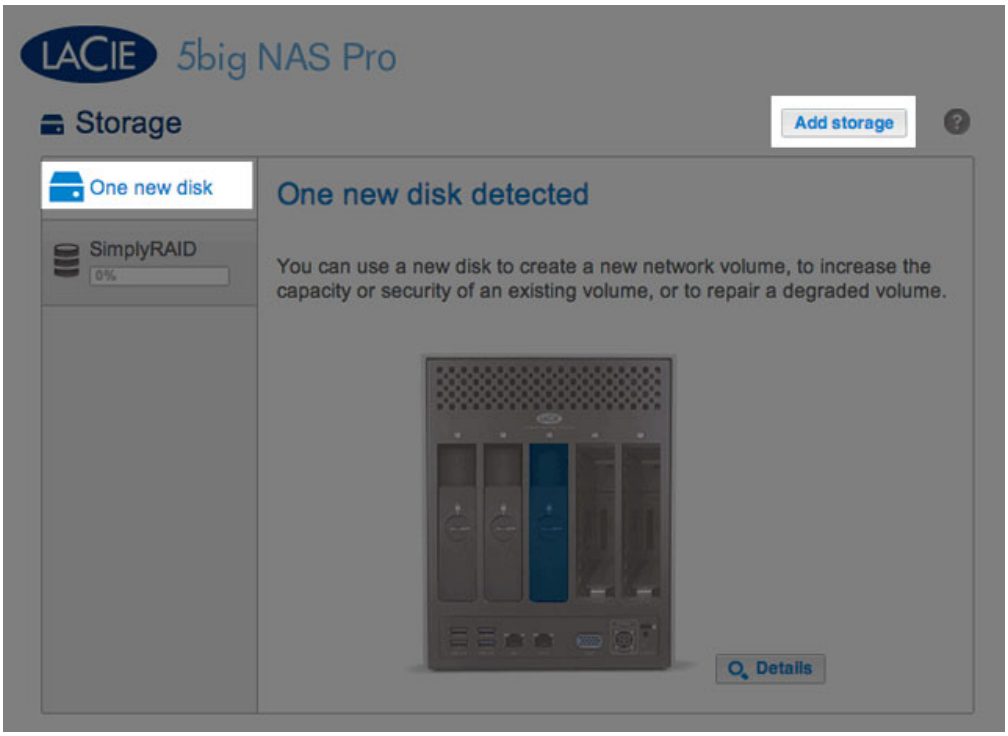
Single-disk volume

NAS OS allows you to create a volume with only one disk, then expand as you add disks to the enclosure. A volume with a single disk can be configured for SimplyRAID, JBOD, or RAID 1. Each level of RAID has its own advantages, as described in 5big NAS Pro: About RAID Modes.

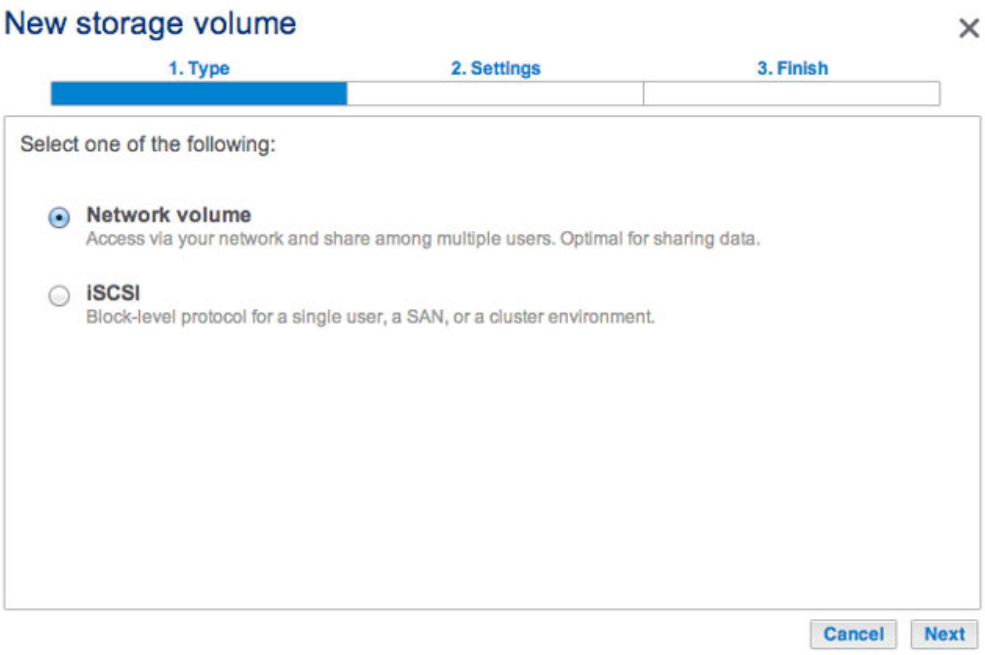
If you have not inserted the hard drive into the LaCie 5big NAS Pro, please see Remove/Insert a Hard Disk for basic instructions. For a full explanation of adding disks to the enclosure, see Connect to the Network: Diskless LaCie 5big NAS Pro. Once the disk has been installed, the **Dashboard > Storage** page should display at least one new hard drive.

SimplyRAID

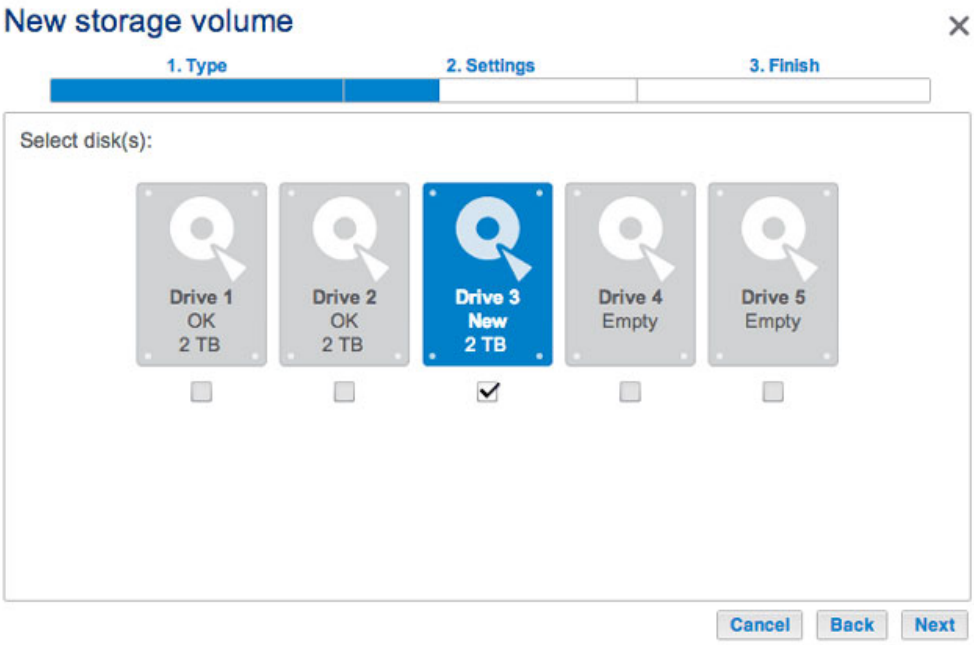
1. Select **One new disk** at the top of the left-hand column, then choose **Add storage**.



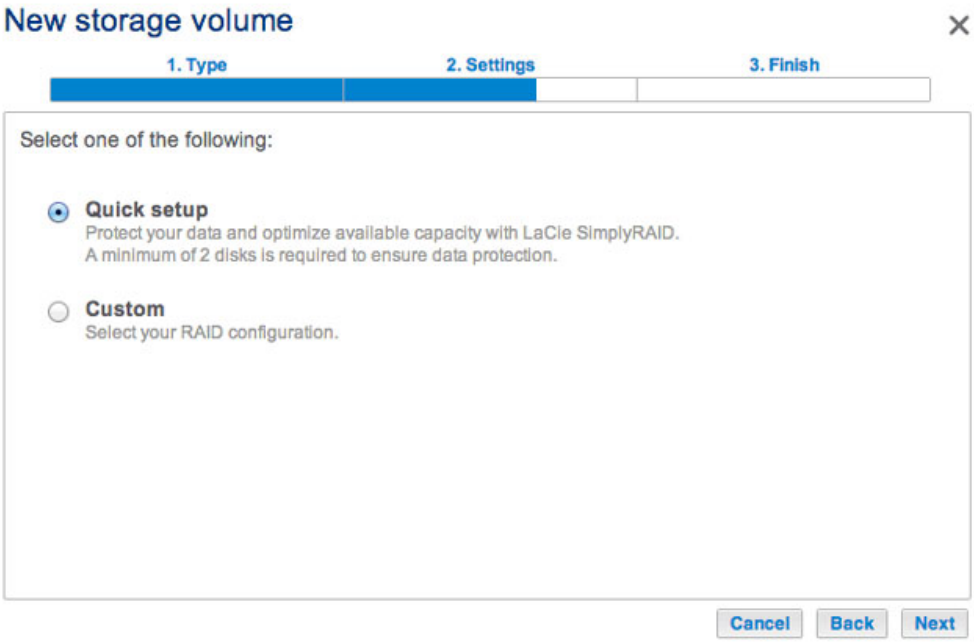
2. Select **Network volume** then choose **Next**.



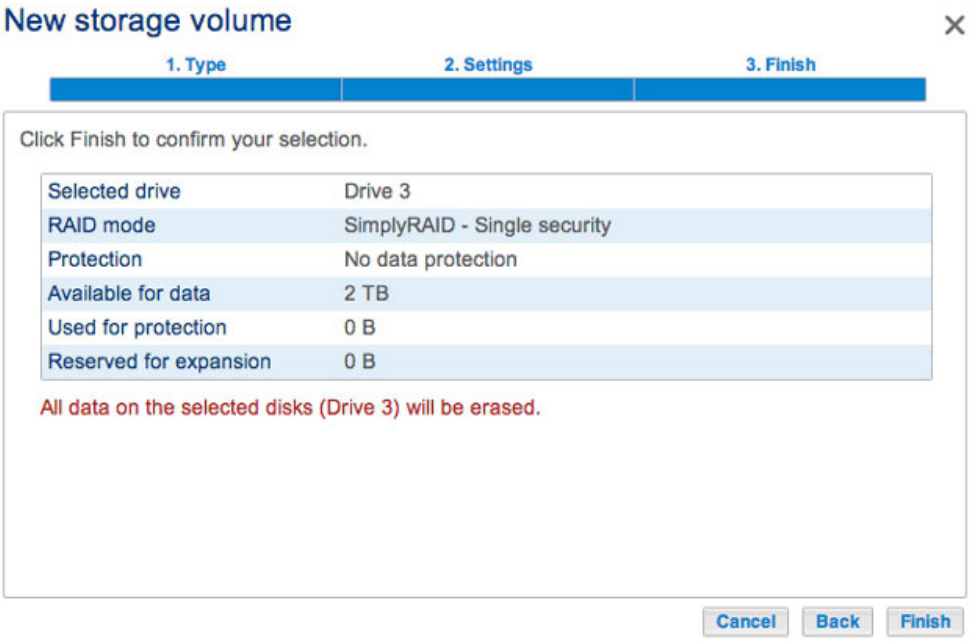
3. Select the check box under the new disk then choose **Next**.



4. Select **Quick setup** then choose **Next**.



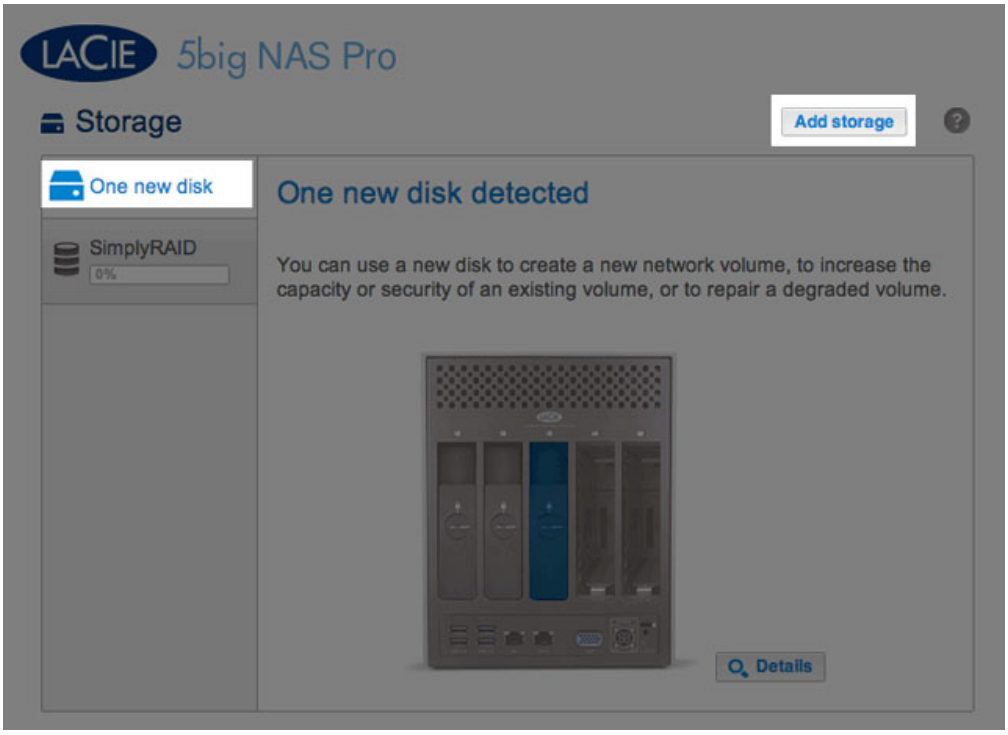
5. Review the summary window then choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the SimplyRAID volume.



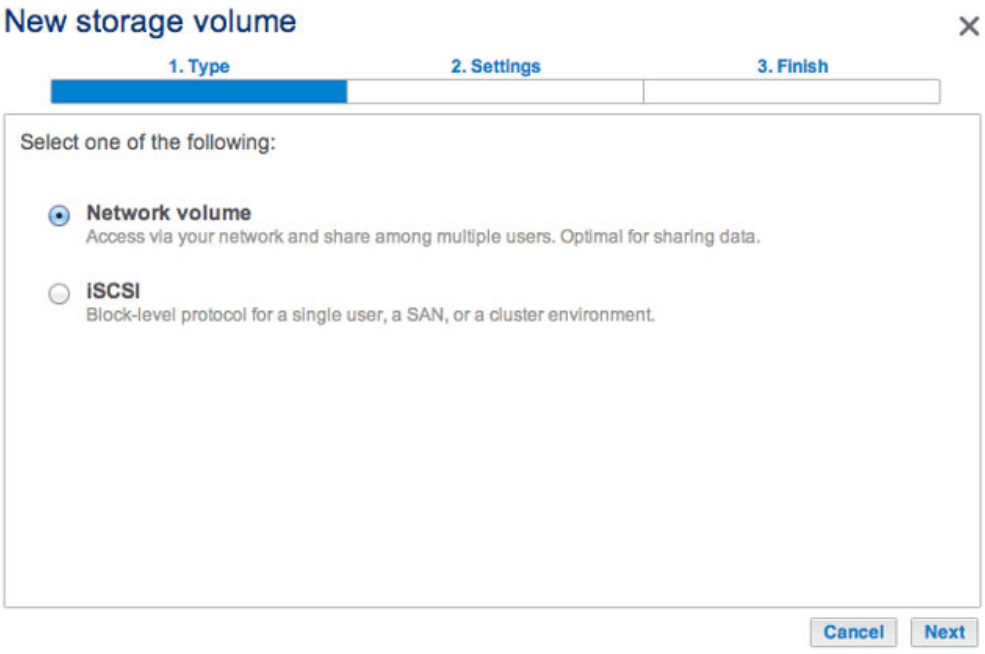
Though it is a SimplyRAID volume, data is not protected with a single disk.

RAID 1 or JBOD

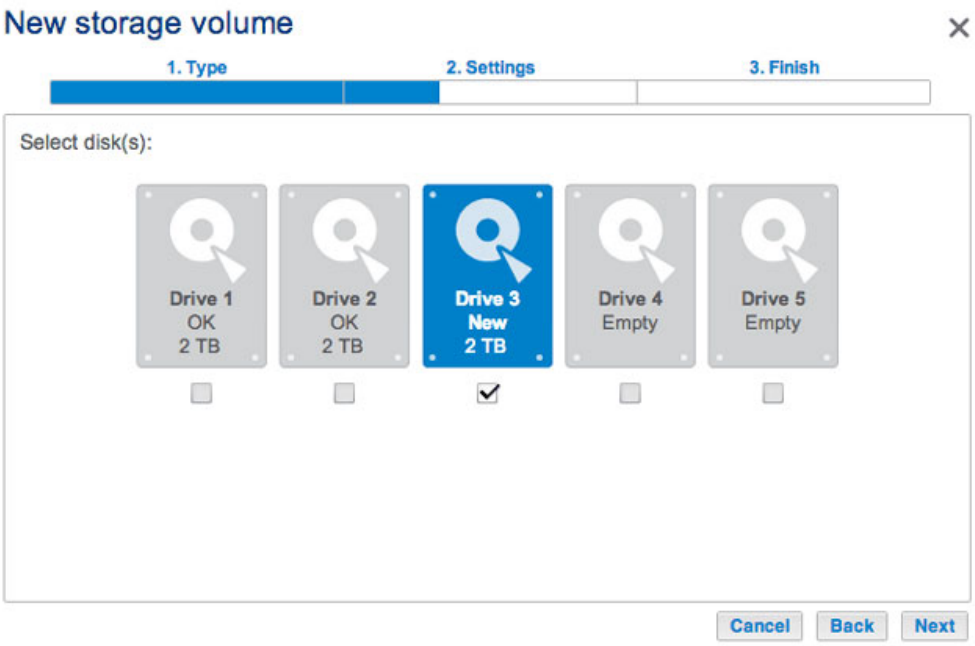
1. Select **One new disk** at the top of the left-hand column, then choose **Add storage**.



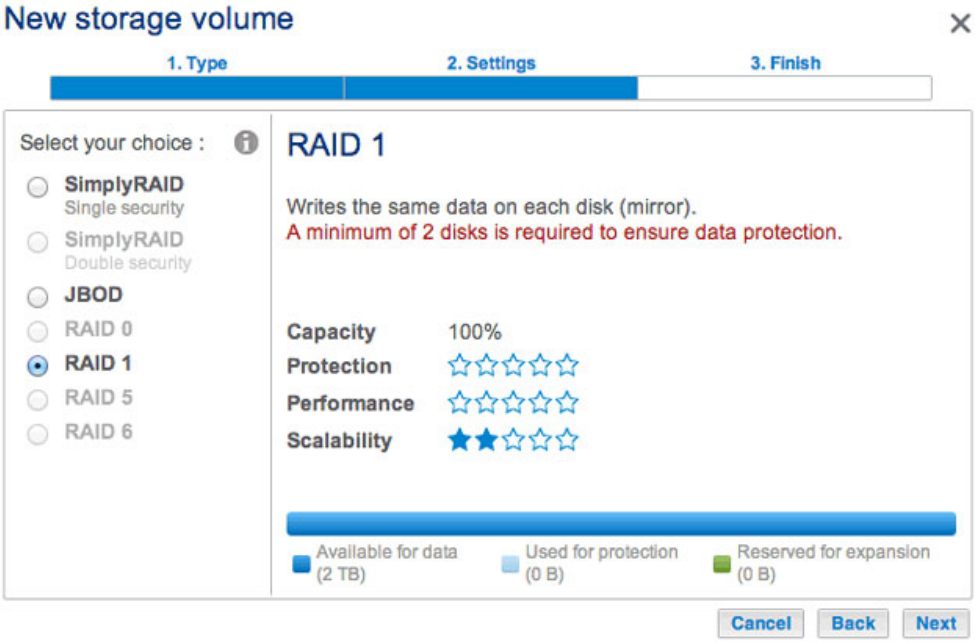
2. Select **Network volume** then choose **Next**.



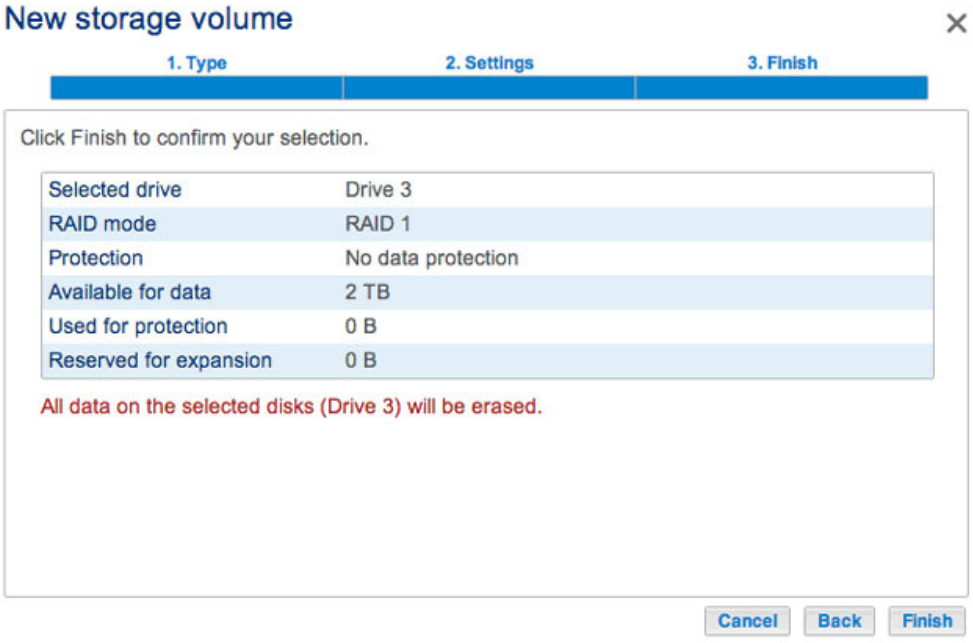
3. Select the check box under the new disk then choose **Next**.



4. Select **Custom** then choose **Next**.
5. Select JBOD or RAID 1, then choose **Next**.



6. Review the summary window then choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the volume.



7. Though it is a RAID 1 volume, data is not protected with a single disk.

To expand a single-disk volume, see [Hard Disk Expansion: Single-Disk and Unprotected Volumes](#).

Multiple Volumes

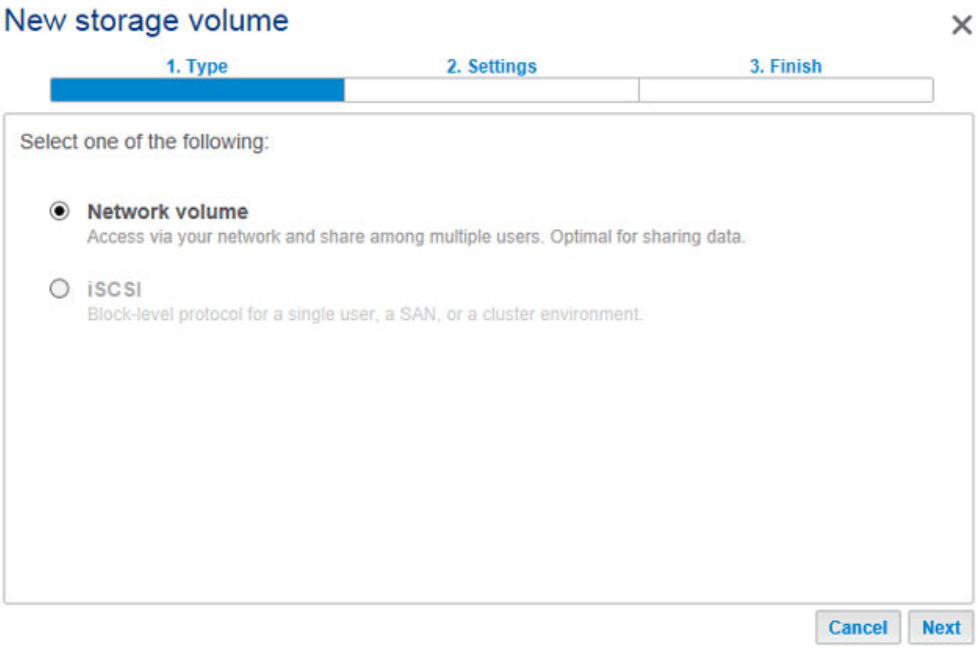
There are many combinations of volumes and RAID configurations available on your LaCie NAS. While this manual cannot list every single option, you can use the steps below as a guide when you set up multiple volumes on your pool of storage.

This example will demonstrate the creation of two volumes using RAID 0 (performance) and SimplyRAID (protection). To add greater performance to this configuration, the administrator can bond the two Ethernet ports and create an iSCSI target on the RAID 0 volume. See Network and iSCSI Target for additional instructions. A router that supports port aggregation is required for Ethernet bonding.

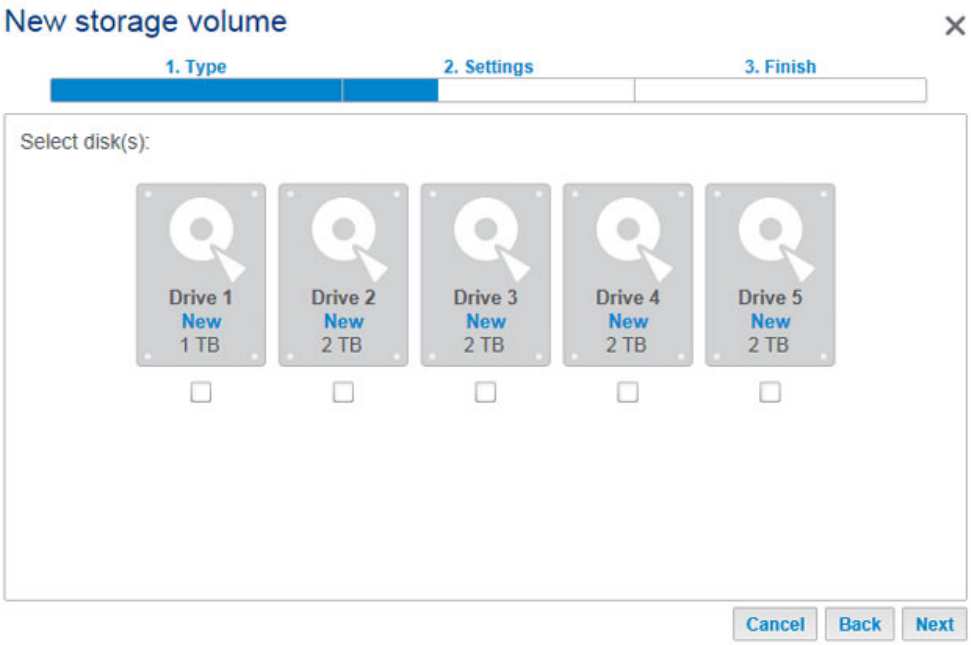
Create the first volume:

1. If you have not inserted the hard drives into the LaCie 5big NAS Pro, please see Remove/Insert a Hard Disk for basic instructions. For a full explanation of adding disks to the enclosure, see Connect to the Network: Diskless LaCie 5big NAS Pro.
2. Choose **Add storage**.

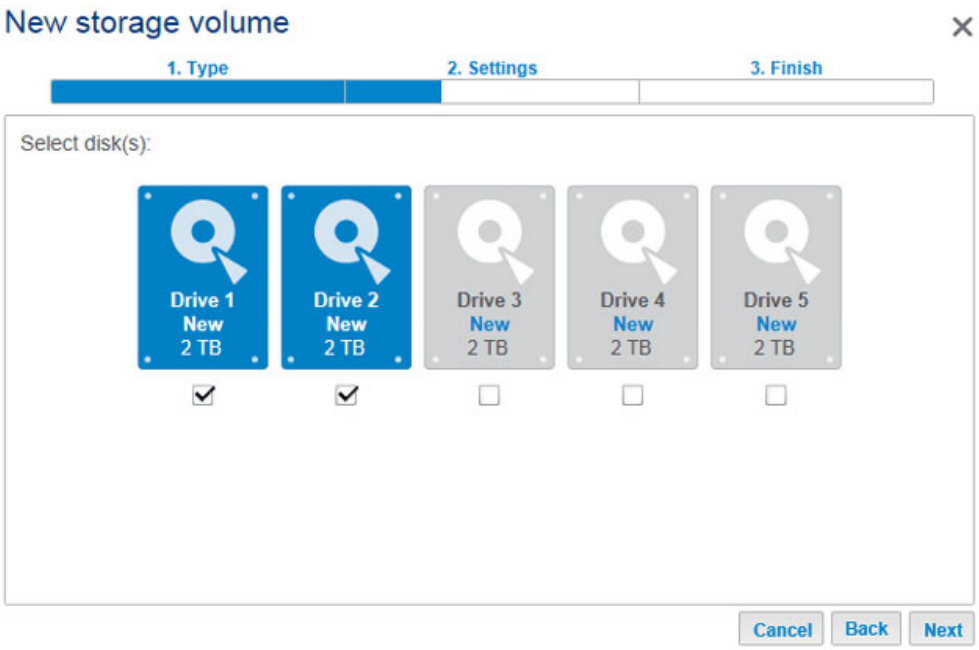
3. Select **Network volume** and choose **Next**.



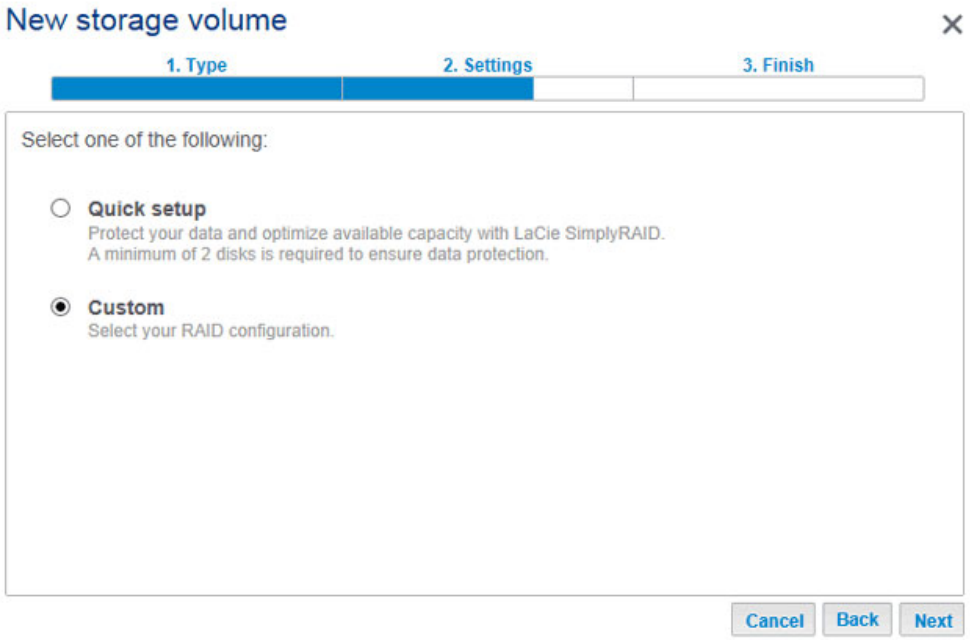
4. For this first volume, all disks are grey. A disk will turn blue once the box is checked.



5. Select the check box under the new disks and choose **Next**. In this example, we will create a RAID 0 volume using the first two disks.

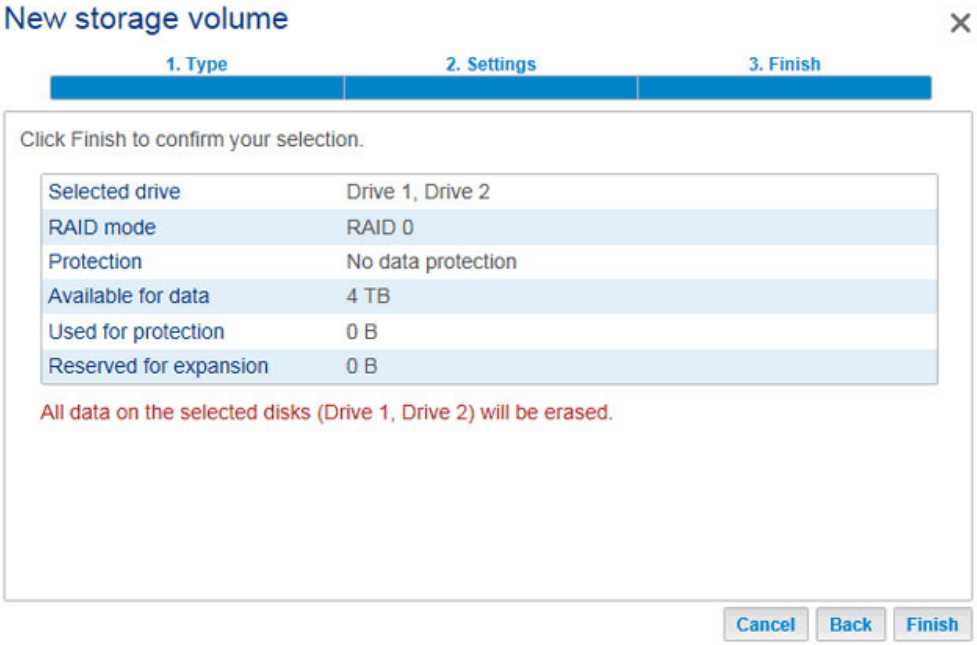


6. Choose **Custom** to select the RAID level. Choose **Next**.



7. Select the RAID level and choose **Next**. This example shows RAID 0.

8. Review the summary window then choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the volume.

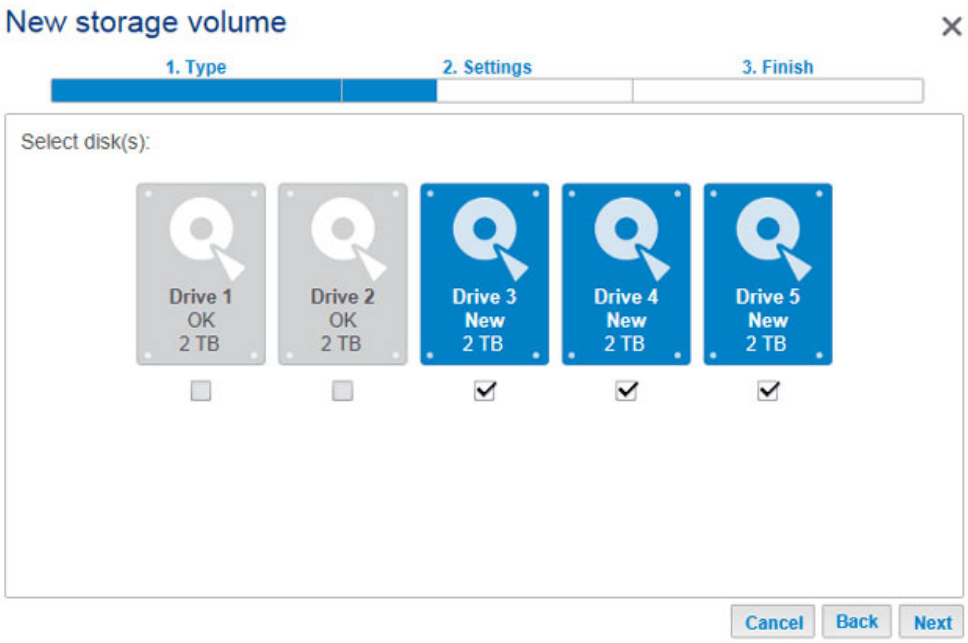


9. A RAID 0 volume takes less than five minutes to build. Note that the first volume has been created using the two hard drives. There are now three new disks on the top left.

Create the second volume:

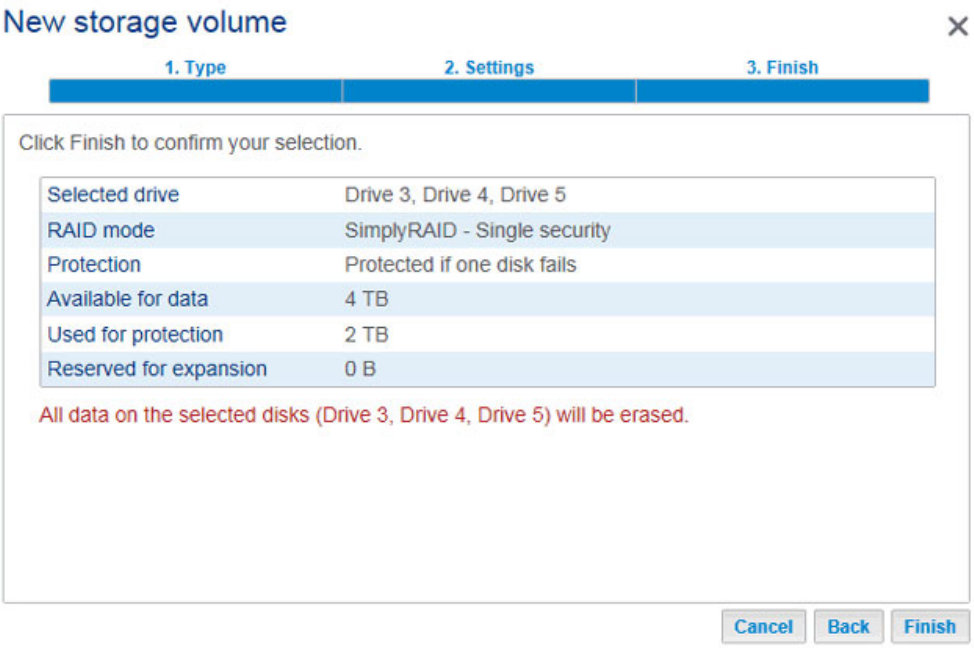
1. Choose **Add storage**. Important: Do not select an existing volume with **Add storage**. Doing so could risk deleting the existing volume and its data.

2. Select **Network volume** and choose **Next**.
3. Note that the disks in the first volume are not available. Select the check box under the disks you want to use for the volume then choose **Next**. In this example, we will use the remaining three disks to create a SimplyRAID volume.



4. Select **Quick setup** for SimplyRAID and choose **Next**.

5. Review the summary window then choose **Finish**. A popup window cautions you that all data on the selected disks will be deleted to create the volume. Select **Yes** to build the volume.



6. A protected volume will take time to synchronize. Note that both volumes have been created and are ready for use.

Synchronizing Times

Synchronizing a volume can take five minutes to many hours, depending on the level of RAID, the capacity of the hard disks in the volume, and your LaCie NAS's available resources (concurrent tasks such as backups or torrent downloads will slow synchronizing). For example, creating an unprotected RAID volume takes less than five minutes while RAID 6 with large capacity disks can run for one or more days. Note that you can access the volume while it is synchronizing.