

# CHECK THE VIRTUAL DISK FOR ERRORS

LaCie RAID Manager can help you maintain optimal performance on a virtual disk using *Consistency check* and *Consistency fix*.

A consistency check scans and reports the integrity of parity or mirrored data on the virtual disk. Periodic consistency checks are highly recommended as part of regular maintenance for virtual disks. Users should also run a consistency check when a virtual disk is not performing as expected.

A consistency fix scans, reports, and fixes parity or mirrored data on the virtual disk. You can choose to run the consistency fix instead of the consistency check if you suspect that your virtual disk is experiencing problems. A consistency fix can take longer to run than a consistency check.

## RUNNING A FULL INITIALIZATION BEFORE RUNNING A CONSISTENCY CHECK/FIX

As described in [Create Arrays and Virtual Disks](#), LaCie RAID Manager runs an initialization on a virtual disk when it is first created. Similar to a consistency fix, the initialization scans the virtual disk's hard drives for errors and performs repairs if necessary. There are two types of initialization:

- **Fast initialization:** Fast initialization is a destructive process that erases all data on the virtual disk, including the Master Boot Records (MBR) on all physical disks. This is a good option if you wish to perform a cursory consistency check before starting a project.
- **Full initialization:** A thorough consistency check of the virtual disk's hard drives. A full initialization can take many hours to several days based upon the total capacity of the virtual disk.

The option to run a consistency check/fix is available only after a full initialization has been performed on a virtual disk.

## Full initializations: background and foreground

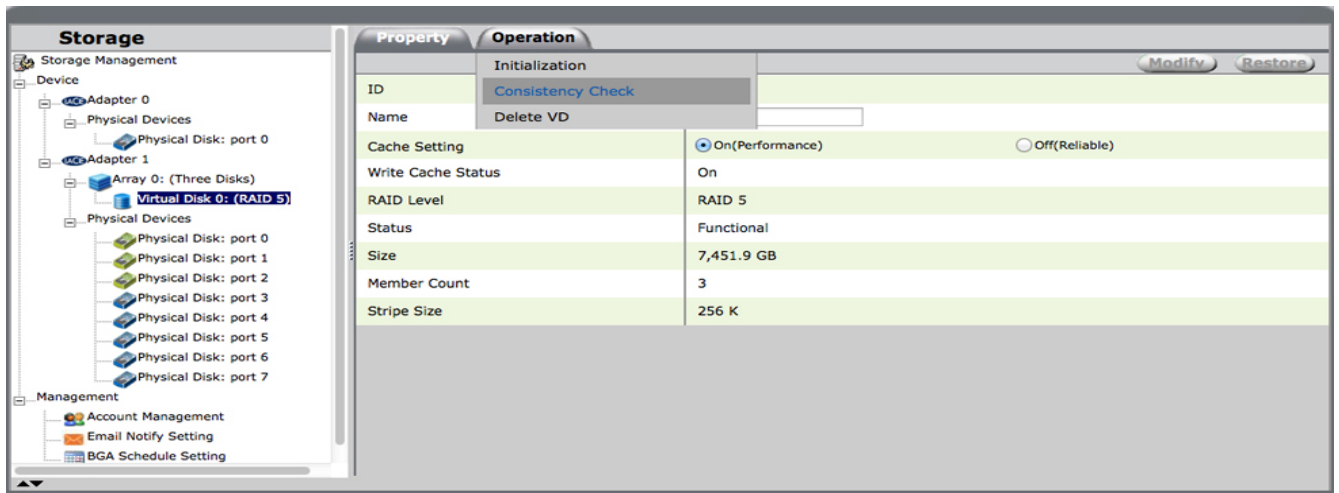
A full initialization can be run as one of the following:

- **Background initialization:** A thorough, non-destructive consistency check of the physical disks. Since it runs in the background, the demand on the processor is reduced when compared with a foreground initialization. However, performance can be impacted, especially when working on high-end video or graphic projects. A background initialization can take many hours to several days based upon the total capacity of the virtual disk.
- **Foreground initialization:** This option is similar to a fast initialization since the MBR for all the physical disks are erased. Therefore, it is also a destructive process. Since it performs a thorough consistency check, this option can take many hours to several days based upon the total capacity of the virtual disk. As its name indicates, a foreground initialization runs in the foreground and can take a good amount of processing power which will affect performance. Choose foreground initialization when you want you want to wipe the hard drives and you do not anticipate starting high-end video or graphic projects within the week.

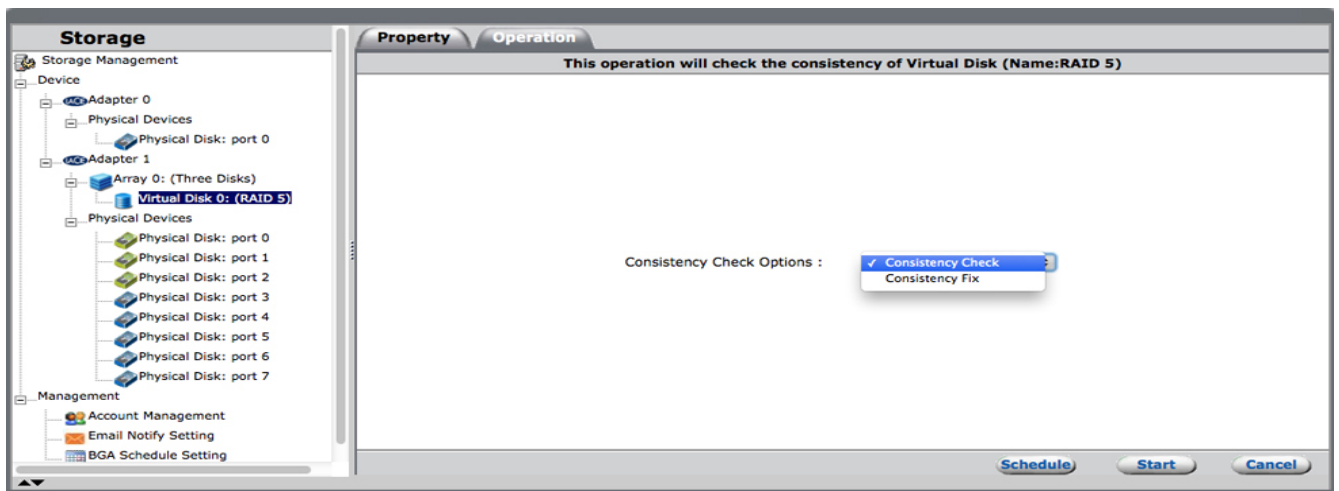
## PERFORMING A CONSISTENCY CHECK/FIX

Follow the instructions below to run a consistency check/fix:

1. Choose the virtual disk in the Storage pane and roll over the Operation tab.

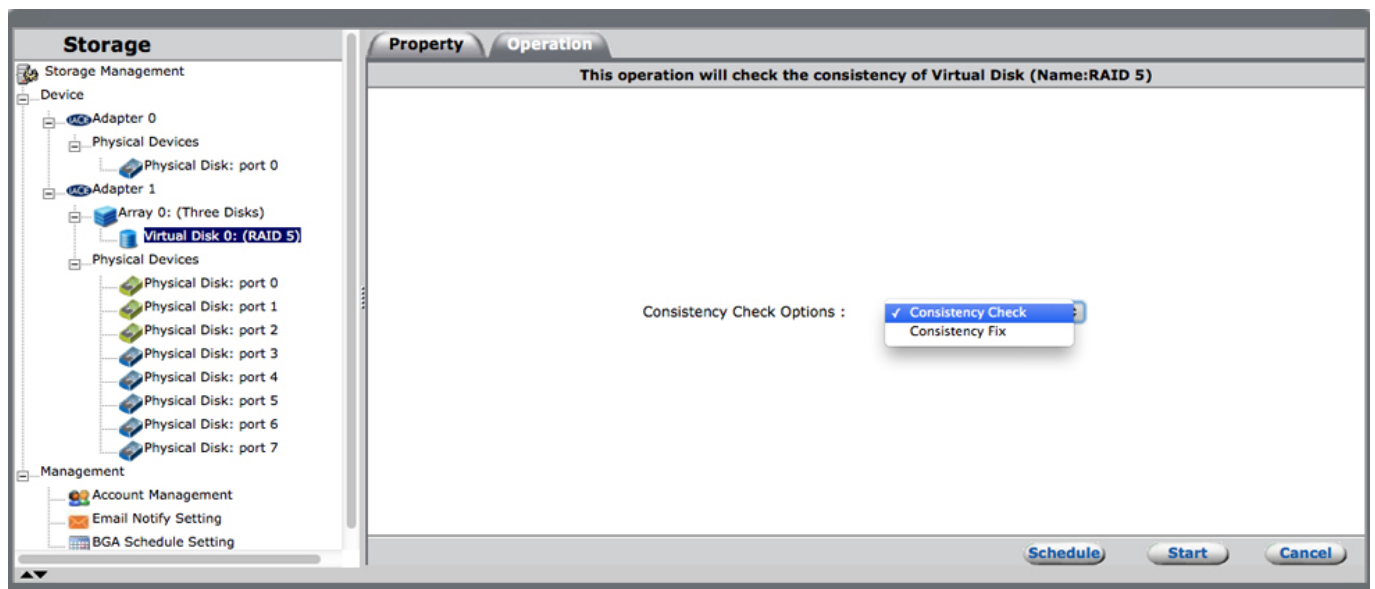


2. Choose **Consistency Check**.
3. In the pull-down menu, select **Consistency Check** or **Consistency Fix**.



4. Choose **Submit**

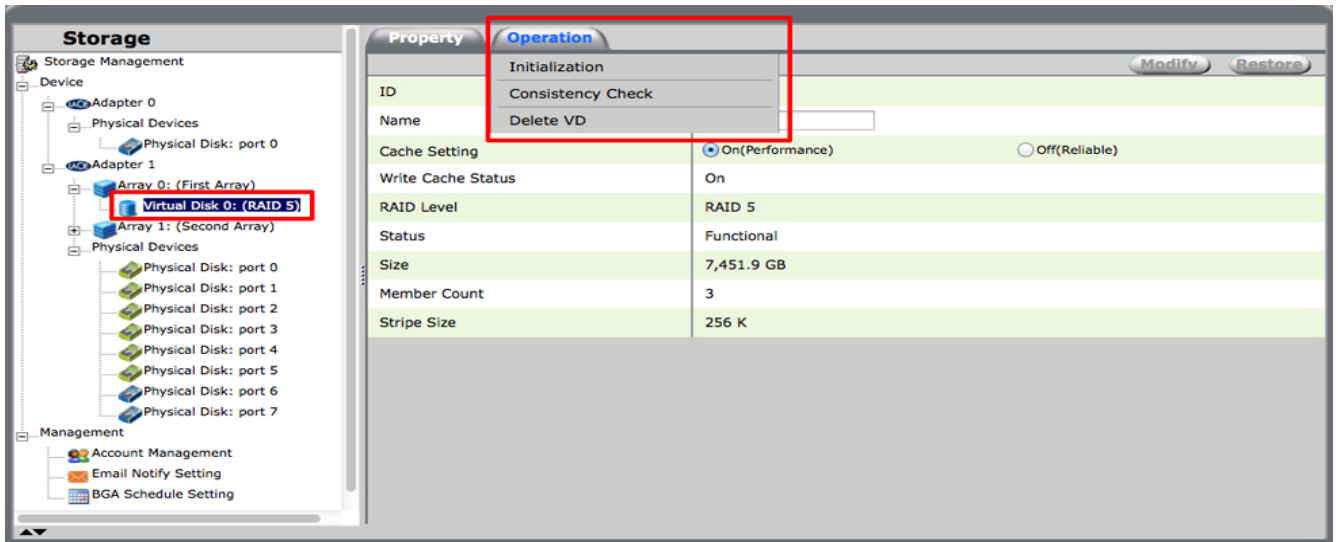
The consistency check/fix will take many hours to several days based upon the total capacity of the virtual disk. You can continue to use the hard drives but performance can be affected by the consistency check/fix.



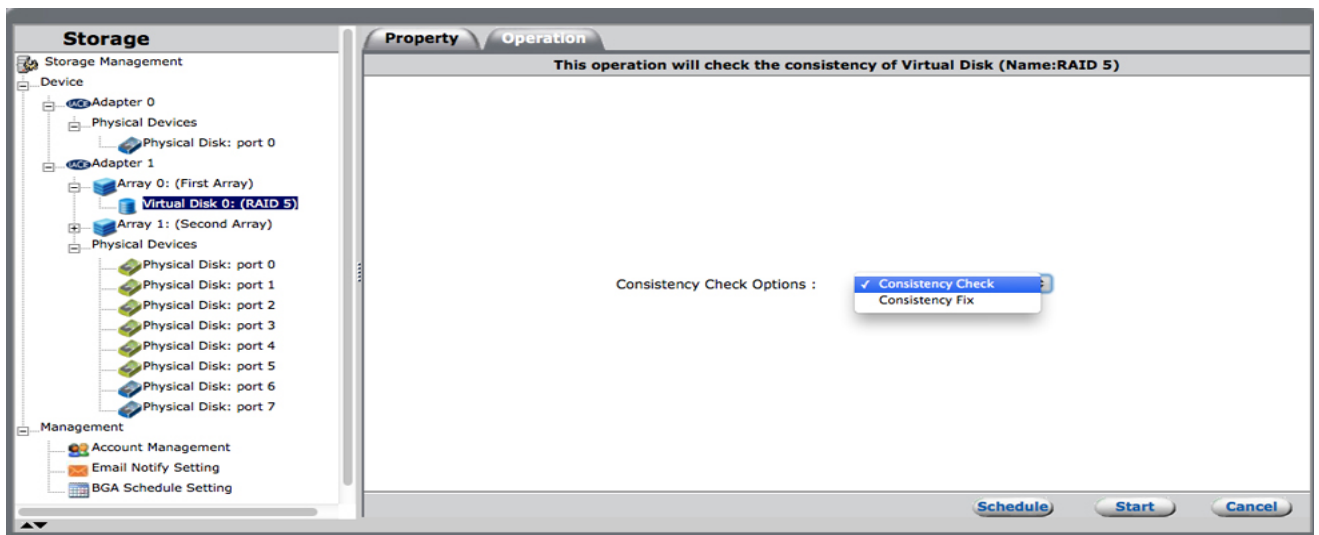
## SCHEDULING A CONSISTENCY CHECK/FIX OR BACKGROUND INITIALIZATION

LaCie RAID Manager gives you the option to schedule regular consistency checks/fixes and background initializations. Regular maintenance on the hard drives can help to prevent data errors and improve the health of the virtual disk.

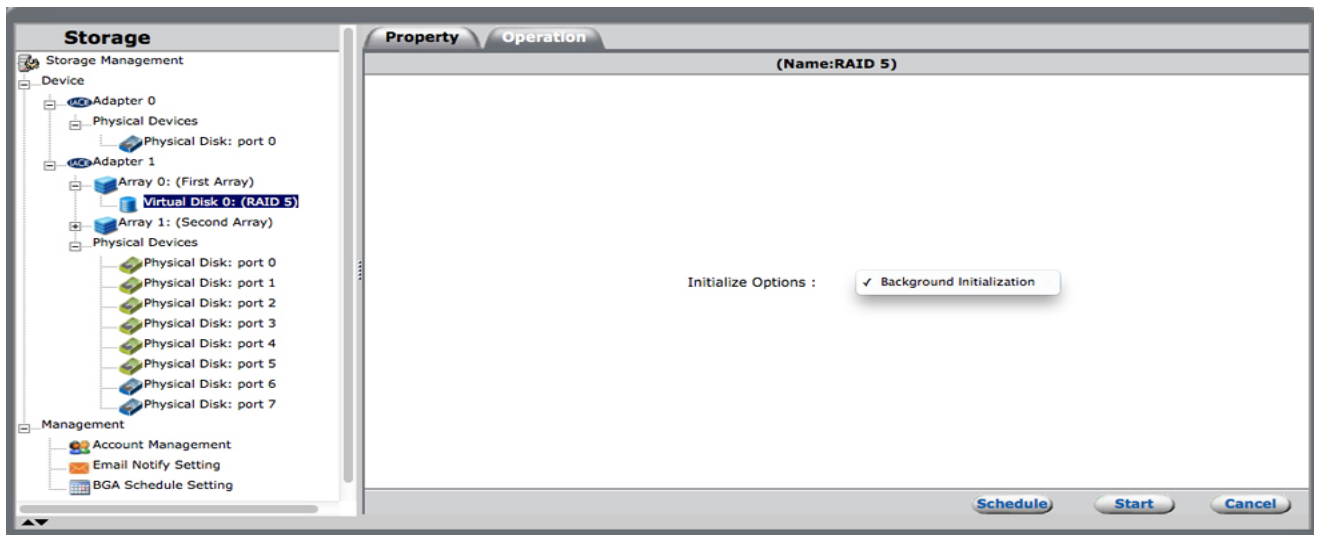
1. Choose the virtual disk in the Storage pane and roll over the Operation tab.



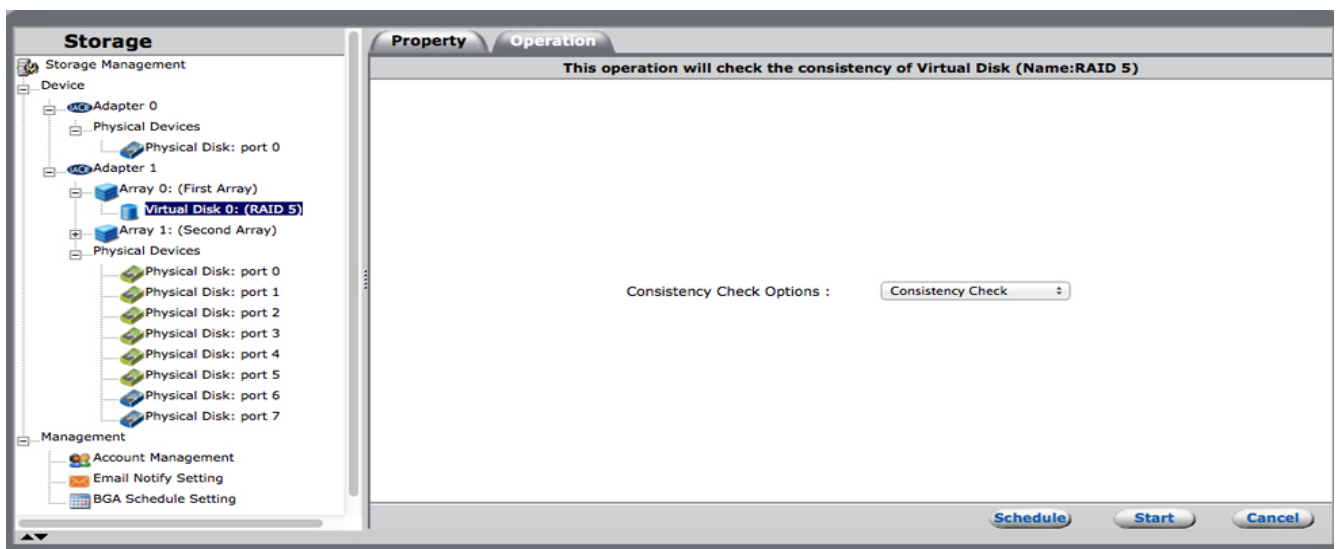
2. Choose **Initialization** or **Consistency Check**.
3. Click on the pull-down menu to choose:
  - **Consistency Check** or **Consistency Fix**.



- **Background Initialization. Note:** The option for a foreground initialization is not available when a full initialization has been performed on the virtual disk.

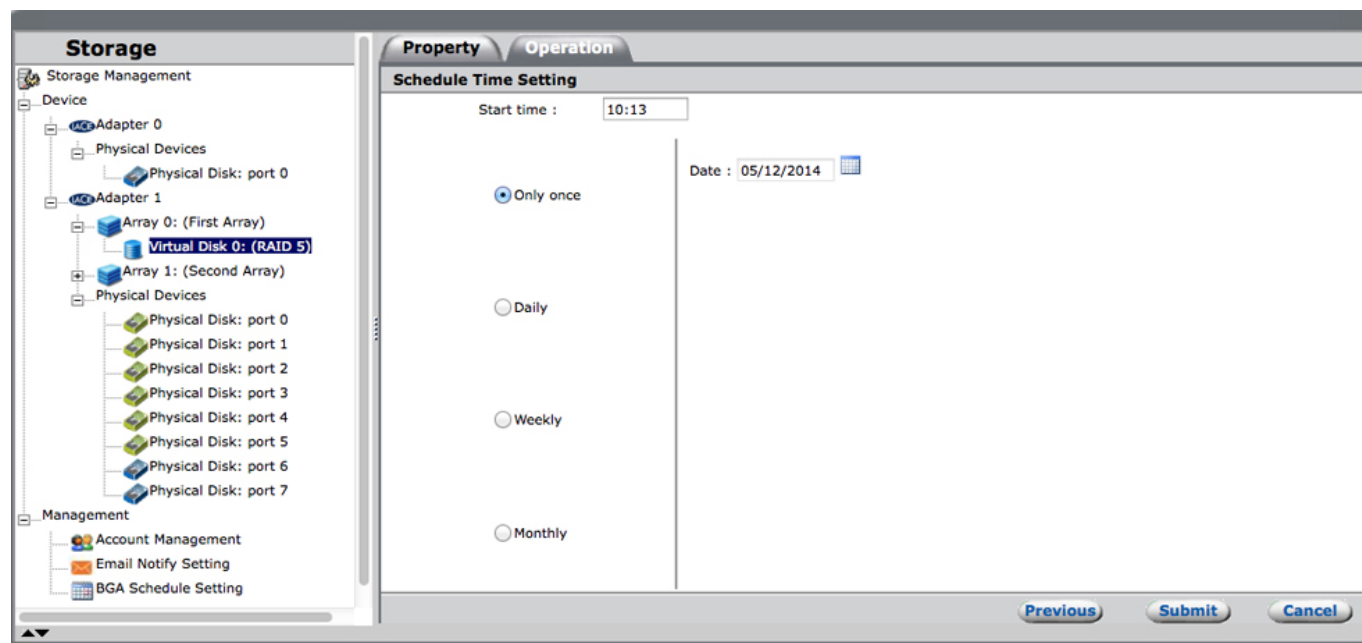


4. Choose **Schedule**.



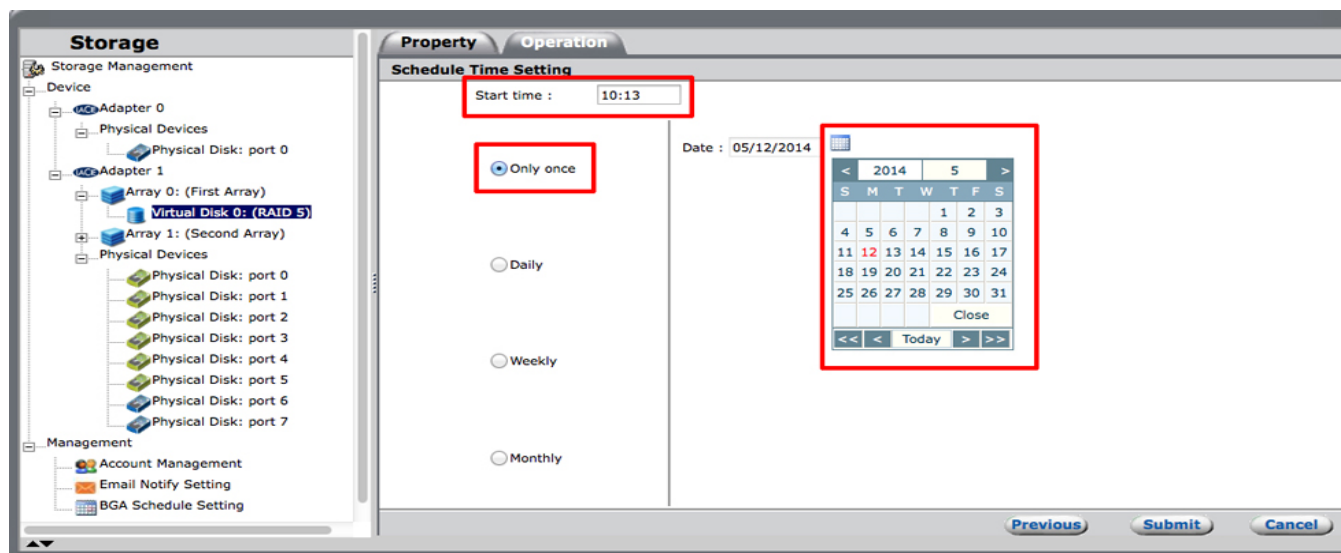
5. Select the frequency and choose **Submit**. See below for scheduling options.

## Scheduling options



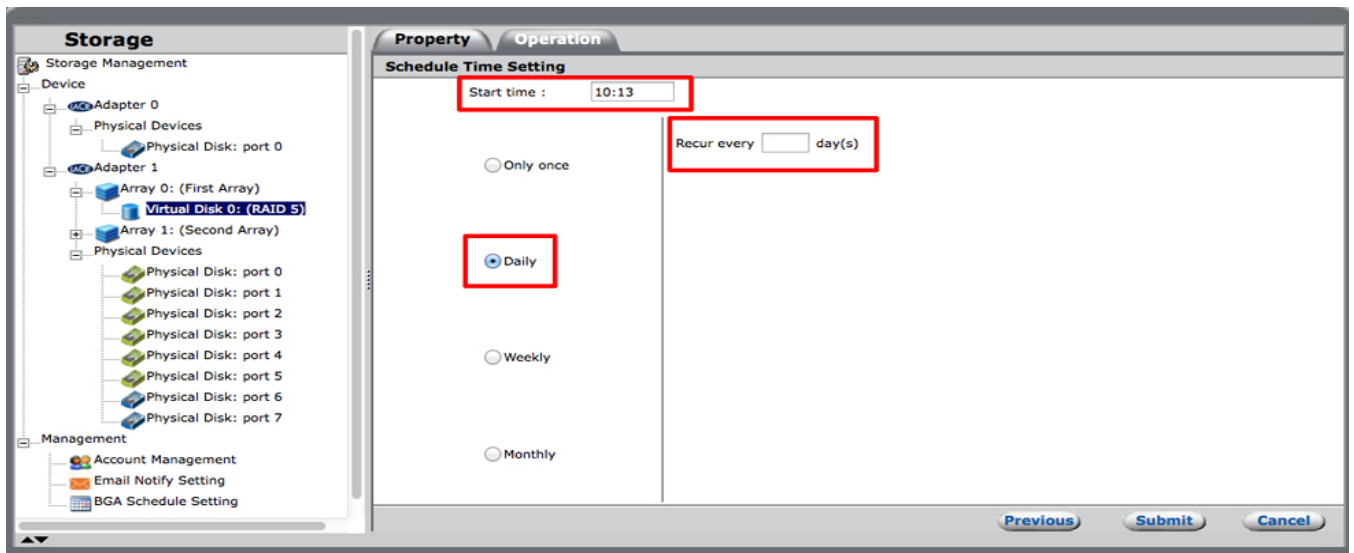
Consistency checks/fixes and initializations can be scheduled:

- **Only once:** Click on the calendar icon to choose a time and enter the time in the **Start time** field.

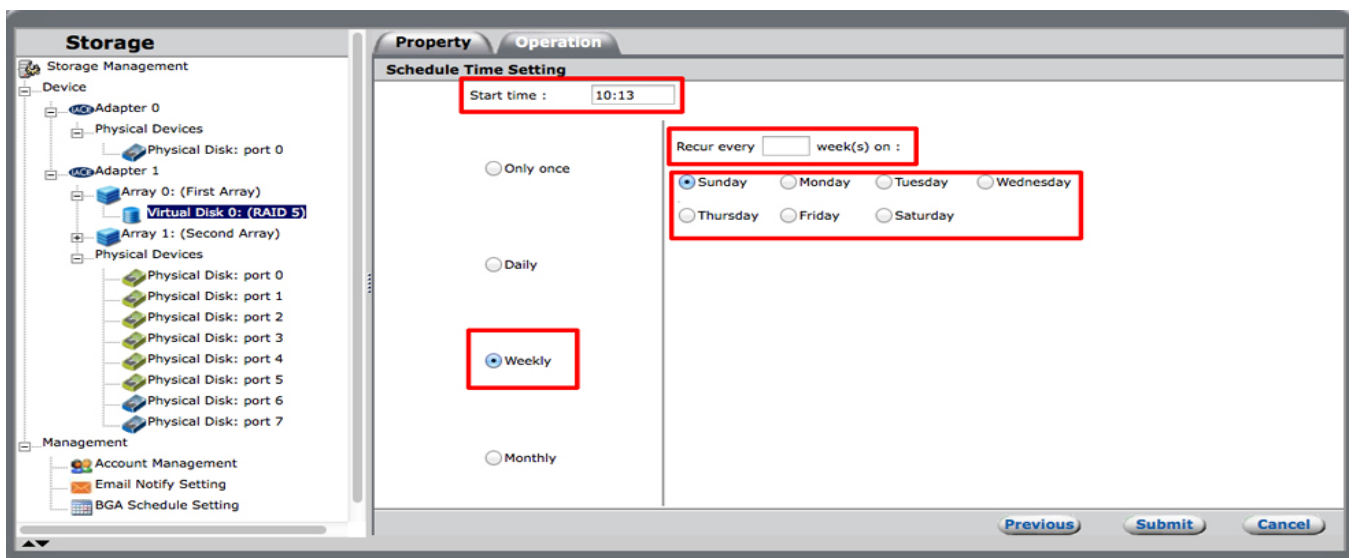


- **Daily:** Choose the frequency and enter the time in the **Start time** field. For example, *Recur every 1 day(s)* or *Recur every 3 day(s)*. The former will run each day and the latter will run every three days.





- **Weekly:** Choose the frequency, day of the week, and enter the time in the **Start time** field. For example, *Recur every 1 week(s)* or *Recur every 3 week(s)*. The former will run once a week and the latter will run once every three weeks.



- **Monthly:** Choose the day of the month, the frequency, and enter the time in the **Start time** field. For example, *Recur day 1 of every 1 month(s)* or *Recur day 28 of every 3 month(s)*. The former will run once a month on the first day of the month. The latter will run once every three months on the twenty-eighth day of the month. To avoid potential confusion with certain months, it is recommended that you choose a date between 1 - 28.

Storage

Storage Management

Device

Adapter 0

Physical Devices

Physical Disk: port 0

Adapter 1

Array 0: (First Array)

Virtual Disk 0: (RAID 5)

Array 1: (Second Array)

Physical Devices

Physical Disk: port 0

Physical Disk: port 1

Physical Disk: port 2

Physical Disk: port 3

Physical Disk: port 4

Physical Disk: port 5

Physical Disk: port 6

Physical Disk: port 7

Management

Account Management

Email Notify Setting

BGA Schedule Setting

Property

Operation

Schedule Time Setting

Start time : 10:13

Only once

Daily

Weekly

Monthly

Recur day of every month(s)

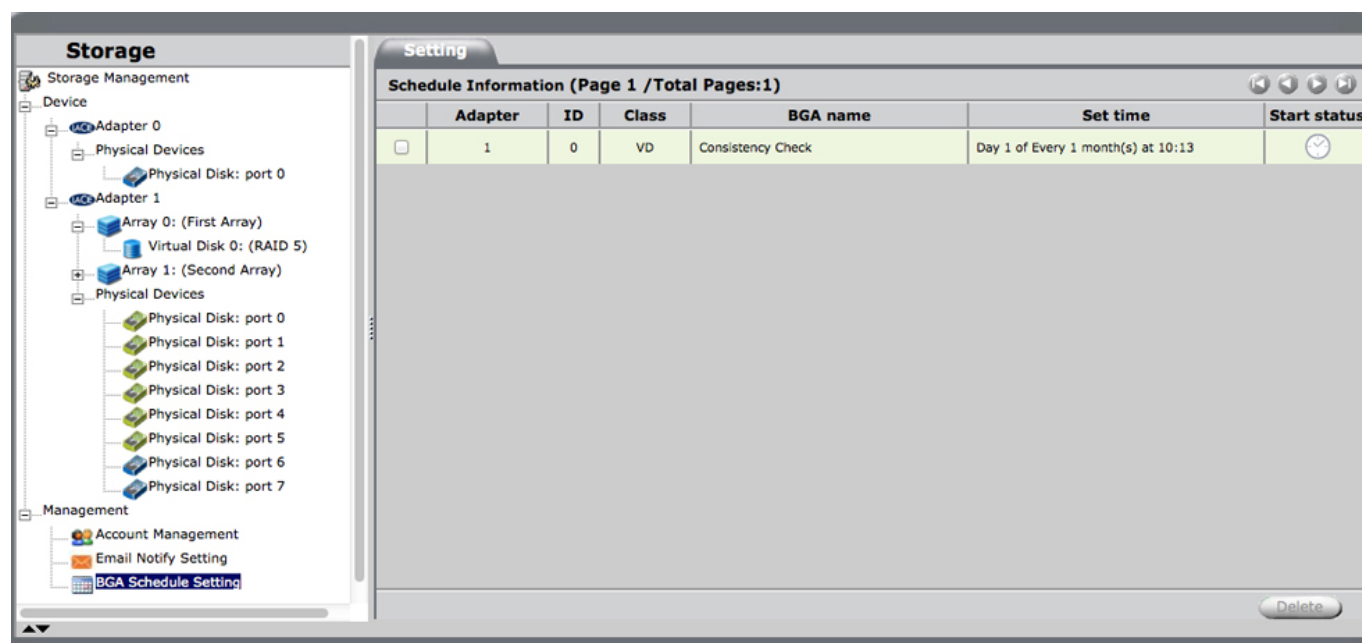
Previous

Submit

Cancel

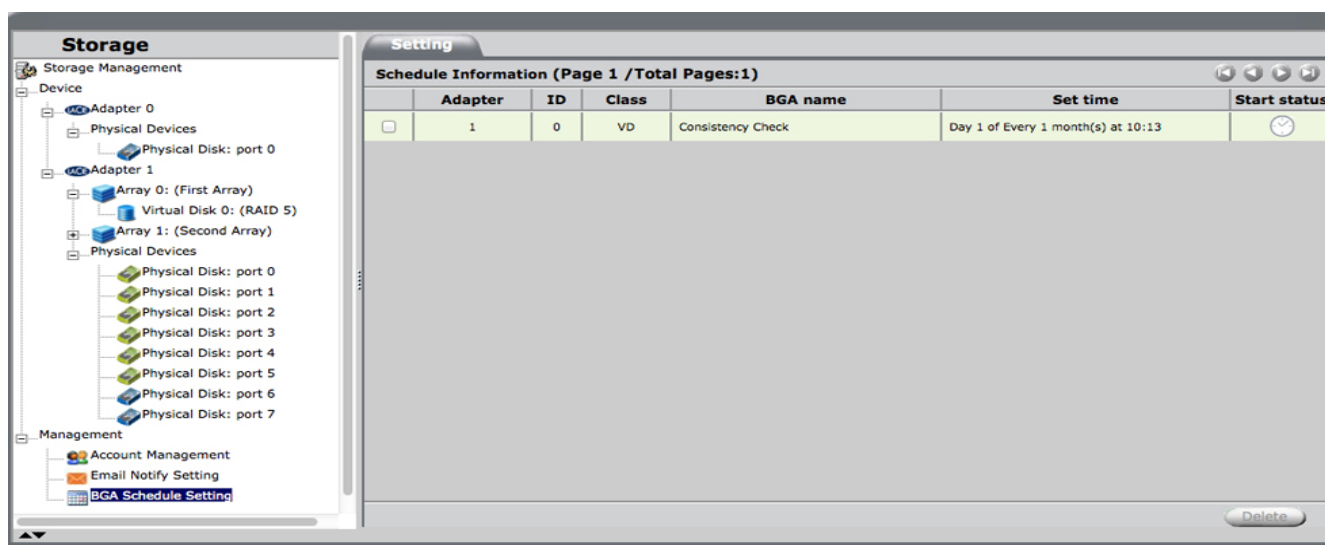
## REVIEWING SCHEDULED CONSISTENCY CHECKS/FIXES AND INITIALIZATIONS

To see scheduled operations, go to the Storage pane and choose **Management > BGA Schedule Setting**.



## Deleting scheduled consistency checks/fixes and initializations

1. Go to the Storage pane and choose **Management > BGA Schedule Setting**.
2. Click on the check box for the operation you want to delete.



3. Choose **Delete**.

Storage

Storage Management

Device

Adapter 0

Physical Devices

Physical Disk: port 0

Adapter 1

Array 0: (First Array)

Virtual Disk 0: (RAID 5)

Array 1: (Second Array)

Physical Devices

Physical Disk: port 0

Physical Disk: port 1

Physical Disk: port 2

Physical Disk: port 3

Physical Disk: port 4

Physical Disk: port 5

Physical Disk: port 6

Physical Disk: port 7

Management

Account Management

Email Notify Setting

BGA Schedule Setting

Setting

Schedule Information (Page 1 /Total Pages:1)

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Adapter	ID	Class	BGA name	Set time	Start status
1	0	VD	Consistency Check	Day 1 of Every 1 month(s) at 10:13	

Delete