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Mounting removable disk(filesystem) using label[Solved]

by [duchhart](#) » Mon Apr 26, 2010 9:07 am

I have FreeNAS setup on a FitPC2 (mini-mini-PC) with a 500GB internal disk, a 1TB external disk (data disk) in an AC Ryan housing, and a 1TB external disk (backup disk) in a Sharkoon SATA Quickport. I use an iMac with the AFP protocol to browse the disks. All disks are found and can be mounted within FreeNAS. However, almost every time I reboot the FreeNAS server, the two external disks are confused and da0 and da1 are swapped. As I run rsync to backup the data disk to the backup disk, this is very dangerous as I would loose data when running rsync! This problem makes my setup very unreliable.

Is there a way to ensure that FreeNAS recognizes the external disks and always maps them to the same da0 or da1? (There is no problem with the internal disk which is consistently mapped to ad0).

I could not find any discussions of this problem on the internet. Anyone recognizes this?

Thanks for any help!
Dennis

Re: FreeNAS confused about which drive is which...

by [danmero](#) » Mon Apr 26, 2010 11:48 am

Hi Dennis

*duchhart wrote:*Is there a way to ensure that FreeNAS recognizes the external disks and always maps them to the same da0 or da1?
(There is no problem with the internal disk which is consistently mapped to ad0).

The only workaround is to mount the disk using the volume Label.
You can't do that from FreeNAS WebGUI, you have to mount manually, use a script or hack into config.xml

Re: FreeNAS confused about which drive is which...

by [duchhart](#) » Mon Apr 26, 2010 3:46 pm

Thanks!
I assume this would be done in the mount section in the config file?

It currently reads:
Code: [Select all](#)

```
<mount>
  <uuid>88129aae-6966-4429-8d85-66dc19020908</uuid>
  <type>disk</type>
  <mdisk>/dev/da0</mdisk>
  <partition>p1</partition>
  <fstype>ufs</fstype>
  <devicespecialfile>/dev/da0p1</devicespecialfile>
  <sharename>HIT1000</sharename>
  <desc>Hitachi 1T Music Library disk</desc>
  <accessrestrictions>
  <owner>Dennis</owner>
  <group>admin</group>
  <mode>0777</mode>
  </accessrestrictions>
</mount>
```

What should I add where? Don't want to mess this up... 😊
Dennis

[Re: FreeNAS confused about which drive is which...](#)

by [danmero](#) » Mon Apr 26, 2010 6:21 pm

I'll try to walk you through, on my example I'll use disk **ad1** formatted using FreeNAS WebGUI having one partition **p1**.

1. I need to get the label for the filesystem on partition ad1p1

Code: [Select all](#)

```
# glabel list ad1p1
Geom name: ad1p1
Providers:
1. Name: ufsid/4bd57b7a8fd27a9e
   Mediasize: 250059315712 (233G)
   Sectorsize: 512
   Mode: r0w0e0
   secoffset: 0
   offset: 0
   seclength: 488397101
   length: 250059315712
   index: 0
Consumers:
1. Name: ad1p1
   Mediasize: 250059315712 (233G)
   Sectorsize: 512
   Mode: r0w0e0
```

The label is ufsid/4bd57b7a8fd27a9e

2. Next I will create a mount point for this partition via FreeNAS WebGUI, disk ad1 partition type: EFI/GPT , partition number 1
3. Next step, go to **Advanced|File Editor** and load /conf/config.xml
4. Look for my mount point

Code: [Select all](#)

```
<mount>
  <uuid>9b04de04-5aa8-4ea0-af11-397a66a72911</uuid>
  <type>disk</type>
  <mdisk>/dev/ad1</mdisk>
  <partition>p1</partition>
  <fstype>ufs</fstype>
  <devicespecialfile>/dev/ad1p1</devicespecialfile>
  <sharename>data</sharename>
  <desc/>
  <accessrestrictions>
    <owner>root</owner>
    <group>wheel</group>
    <mode>0777</mode>
  </accessrestrictions>
</mount>
```

5. Next, just replace <devicespecialfile> , use the label

Code: [Select all](#)

```
<mount>
  <uuid>9b04de04-5aa8-4ea0-af11-397a66a72911</uuid>
  <type>disk</type>
  <mdisk>/dev/ad1</mdisk>
  <partition>p1</partition>
  <fstype>ufs</fstype>
  <devicespecialfile>/dev/ufs/4bd57b7a8fd27a9e</devicespecialfile>
  <sharename>data</sharename>
  <desc/>
  <accessrestrictions>
    <owner>root</owner>
    <group>wheel</group>
    <mode>0777</mode>
  </accessrestrictions>
</mount>
```

6. Save the config.xml file
7. Go to **Advanced|Execute command** and unmount my filesystem
Code: [Select all](#)
`umount /mnt/data`

8. Next go to **Disks|Mount Point|Management** where you will see the status for your mount is Error-Retry, click on Error-Retry and the filesystem will be attached.

If you use this method I'll suggest you do the same for each device(disk) attached via [da](#) -- SCSI Direct Access device driver.

[Re: FreeNAS confused about which drive is which...](#)

by [duchhart](#) » Mon Apr 26, 2010 9:11 pm

This is great, thanks!

I am now going abroad for a week, but will try to follow your instructions when I am back. Much obliged. And I will post the results...

Dennis

[Re: FreeNAS confused about which drive is which...](#)

by [duchhart](#) » Sun May 02, 2010 2:00 pm

Back from vacation, I started following your instructions for my external (single-partition) disk, which is now mounted as da0p1.

However, the command "glabel list da0p1" gives no results, whereas the command "glabel list" yields:

Code: [Select all](#)

```
$ glabel list
Geom name: ad0s1a
Providers:
1. Name: ufsid/4bc097de4f45f42b
   Mediasize: 44040192 (42M)
   Sectorsize: 512
   Mode: r0w0e0
   secoffset: 0
   offset: 0
   seclength: 86016
   length: 44040192
   index: 0
Consumers:
1. Name: ad0s1a
   Mediasize: 44040192 (42M)
   Sectorsize: 512
   Mode: r0w0e0
```

So the only info is about the internal disk, not the external disks...
Any suggestion?

Thanks for helping out!
Dennis

[Re: FreeNAS confused about which drive is which\[Solved\]](#)

by [duchhart](#) » Tue May 04, 2010 1:22 pm

Sorry, I was a bit thick (or just unexperienced).

Connecting the FreeNAS box to a monitor gave me all the necessary info and I was able to follow danmero's instructions. With success~. Thanks!

Dennis