

Network Attached Storage

Synopsis

Network Attached Storage(NAS) is a file level storage solution that can provide several computers and network attached devices access to files. One way I use a NAS server is to provide my family with access to downloaded movies and music. I also use a NAS server to serve up installation files for my [Windows PXE installer](#) . Here is one way to build a NAS server...

NAS Server: Built on a Raspberry Pi

Building the server

Update and install necessary packages

```
sudo apt-get update
sudo apt-get install samba samba-common-bin ntfs-3g
```

Make a directory to mount our USB drive then mount the USB drive

```
sudo apt-get install ntfs-3g
mkdir /media/usbshare
sudo mount -t ntfs-3g /dev/sda1 /media/usbshare/
```

Note: If your drive is not NTFS replace ntfs-3g with vfat Mount your USB drive at startup by editing you fstab file. Always make a backup

```
sudo cp /etc/fstab /etc/fstab.backup
sudo nano /etc/fstab
  Add the following to your fstab file:
    /dev/sda1 /media/usbshare ntfs-3g rw,defaults 0 0
  Note: use fdisk to find your usb drive. In this case mine was sda1
sudo chmod 775 /media/usbshare
```

Reboot and make sure your usb drive mounts correctly Next, create a samba user and edit the smb.conf file

```
sudo smbpasswd -a "YourUsername"
sudo cp /etc/samba/smb.conf /etc/samba/smb.conf.backup
sudo nano /etc/samba/smb.conf
  Find and edit/add the following lines:
    workgroup = "YourWorkGroup"      #Commonly "WORKGROUP"#
    security = user
    socket options = TCP_NODELAY
    [Share]
    path = /media/usbshare
    comment = "Your Comment"
    valid users = "YourUser"
```

```
writeable = yes  
browseable = yes
```

```
testparm #makesure your config is good#
```

If you find you hard drives going into standby (having to spin up every time you access them). Run this command to keep them spinning all the time.

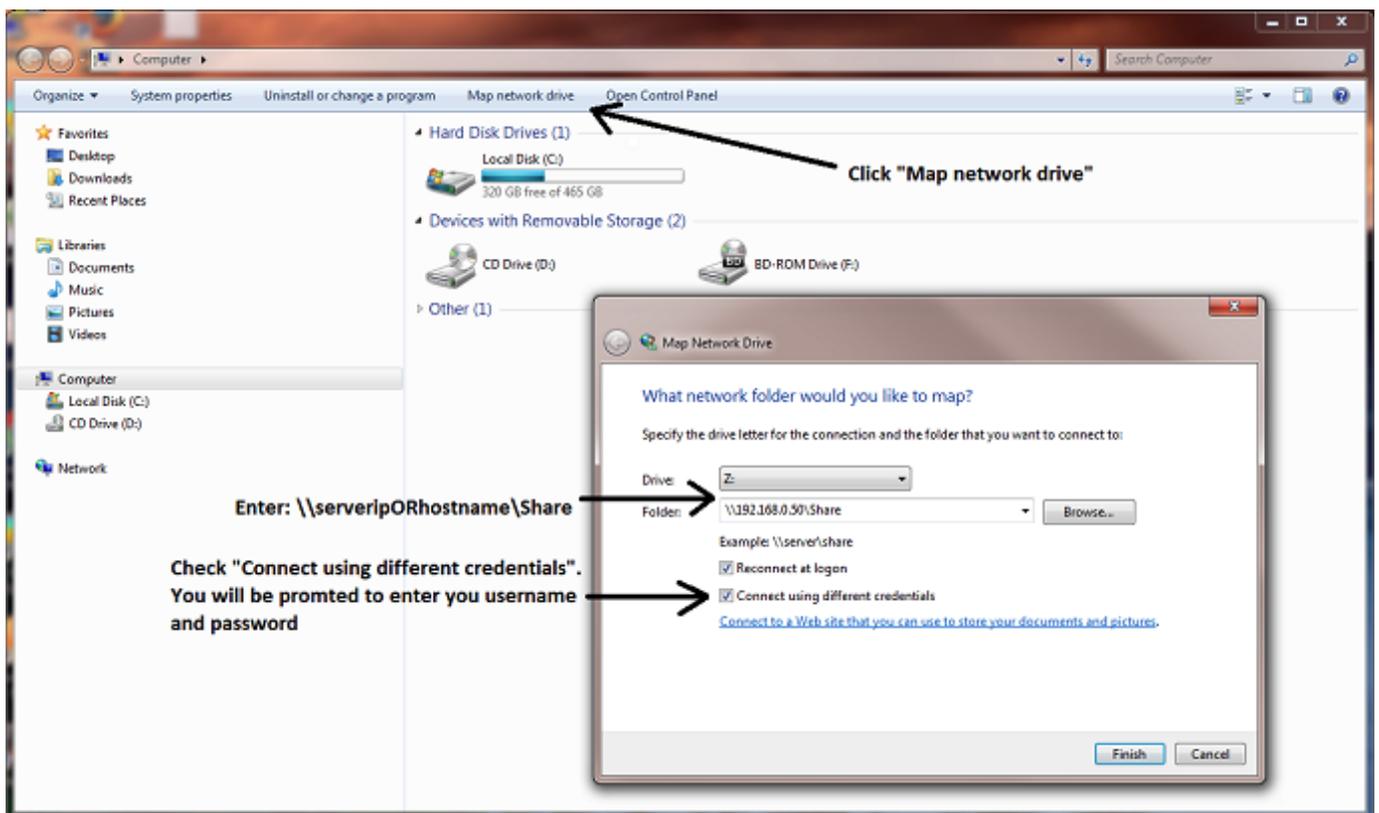
```
hdparm -S 0 /dev/sdb
```

There are other options just run the following to see the full list

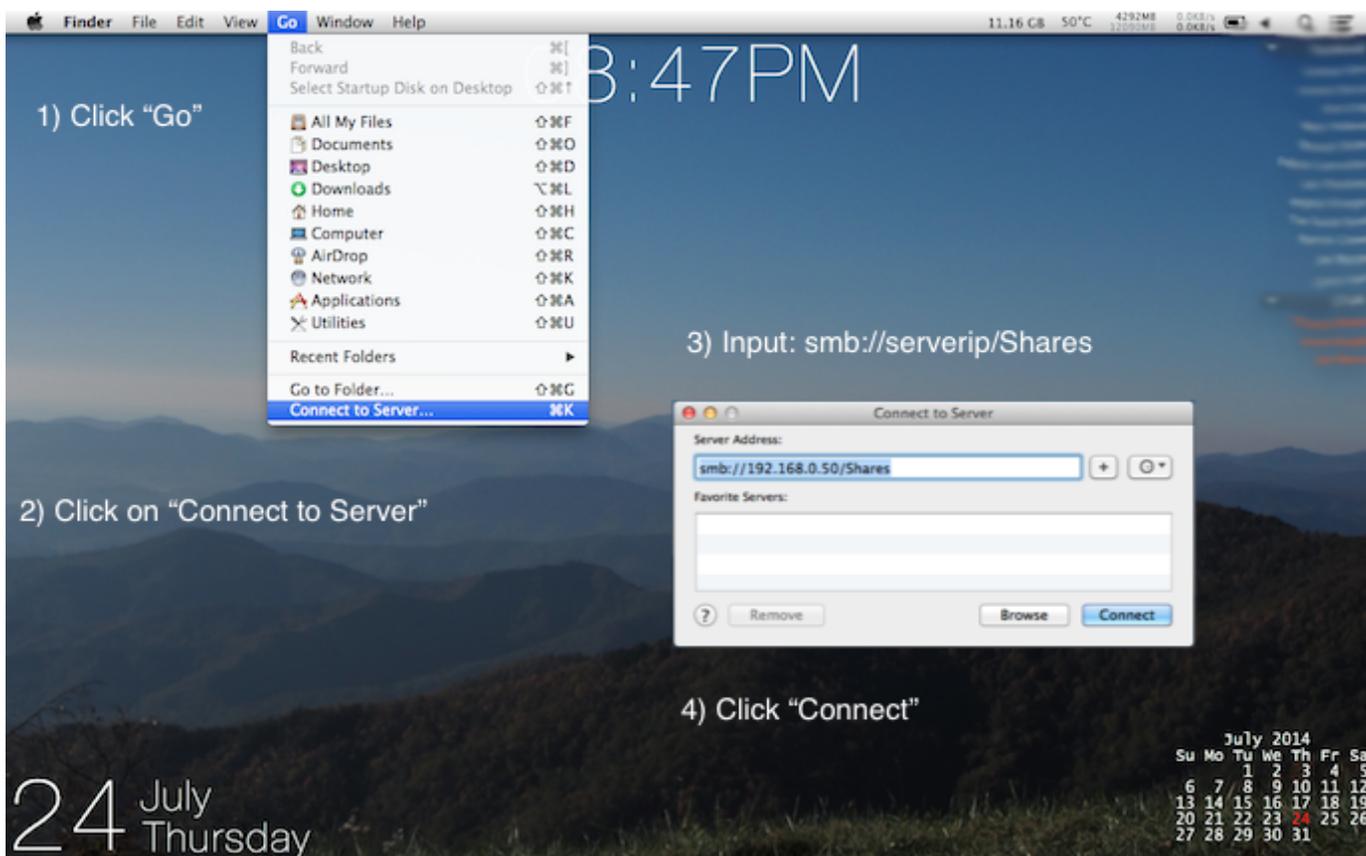
```
man hdparm
```

Connecting to your network share

Windows



OS X



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