

## QNAP x86-based NAS DOM Re-flash Guide

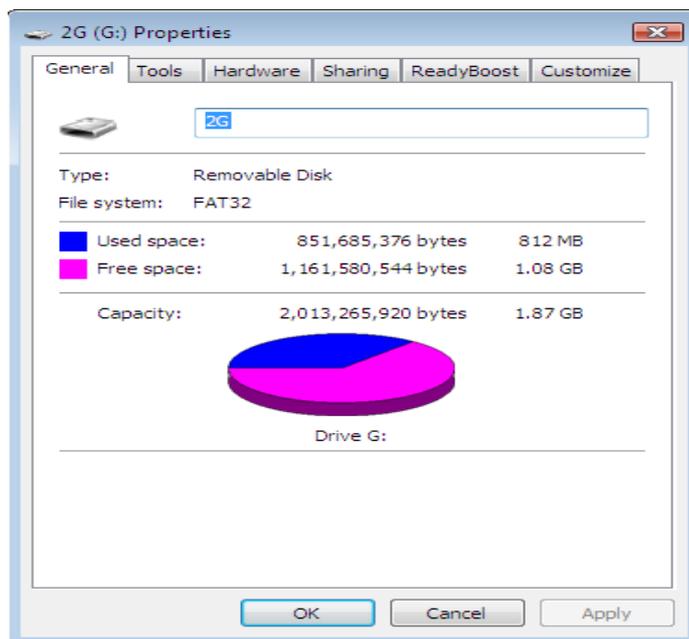
When the firmware on the DOM of QNAP NAS is corrupt, you can not boot up the NAS correctly. If you connect a monitor to the VGA port of QNAP NAS, you can see the NAS pass the POST but fail to access the firmware file on the DOM. You can try to use the following procedure to re-flash the firmware.

**Note:** This guide only apply to QNAP x86-based NAS series. Currently the models include TS-239, SS-439, TS-439, TS-509, SS-839, TS-809/U, TS-239 Pro II, TS-439 Pro II and TS-x59 series.

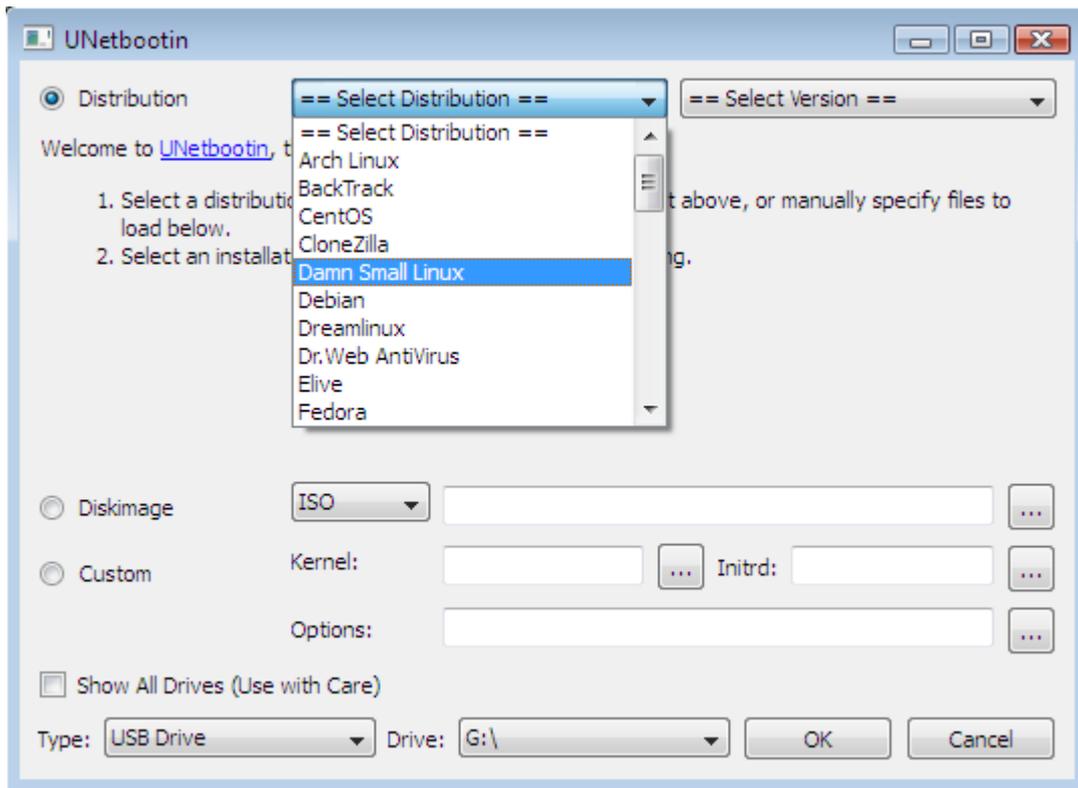
### A. Create a USB boot disk

The following procedures describe how to create a USB boot disk. You can then use this disk to booting up the NAS through USB port then re-flash the firmware file on the USB disk to the internal DOM(Disk on Module) on the NAS.

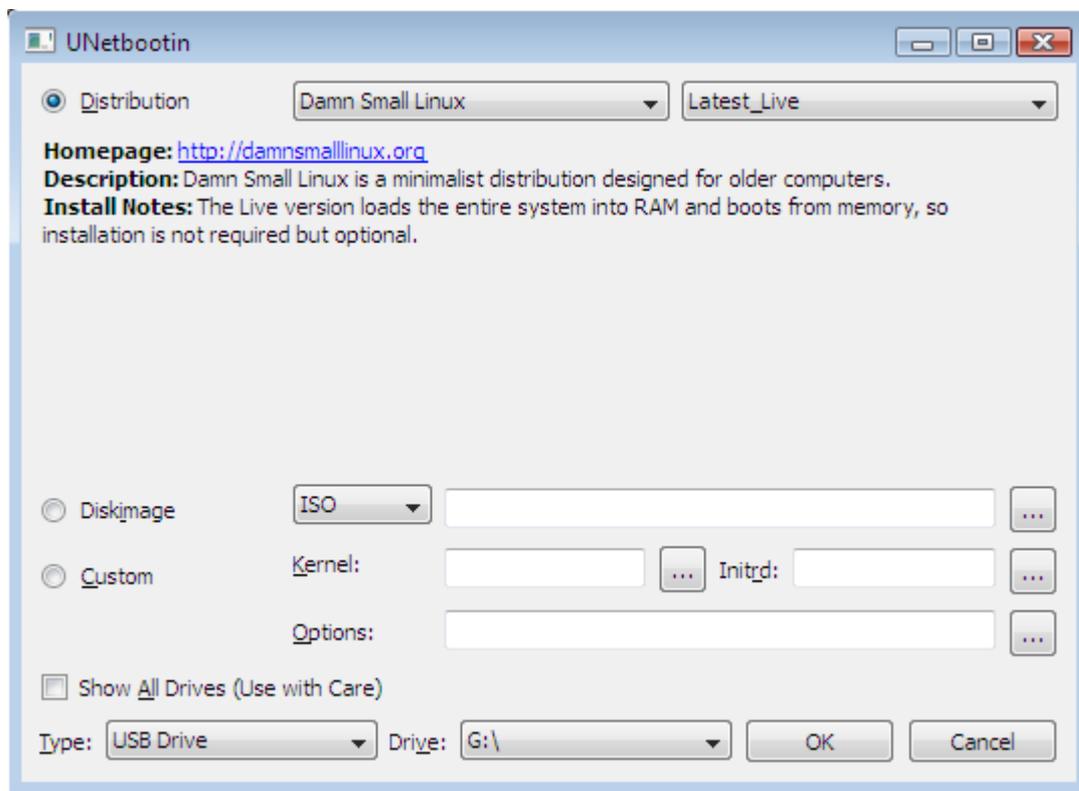
1. Download the unetbootin from the following link:  
<http://unetbootin.sourceforge.net/>
2. Plug a USB flash drive to the PC. The USB flash drive should be 1GB or larger and the file system on the USB flash drive need to be FAT32.



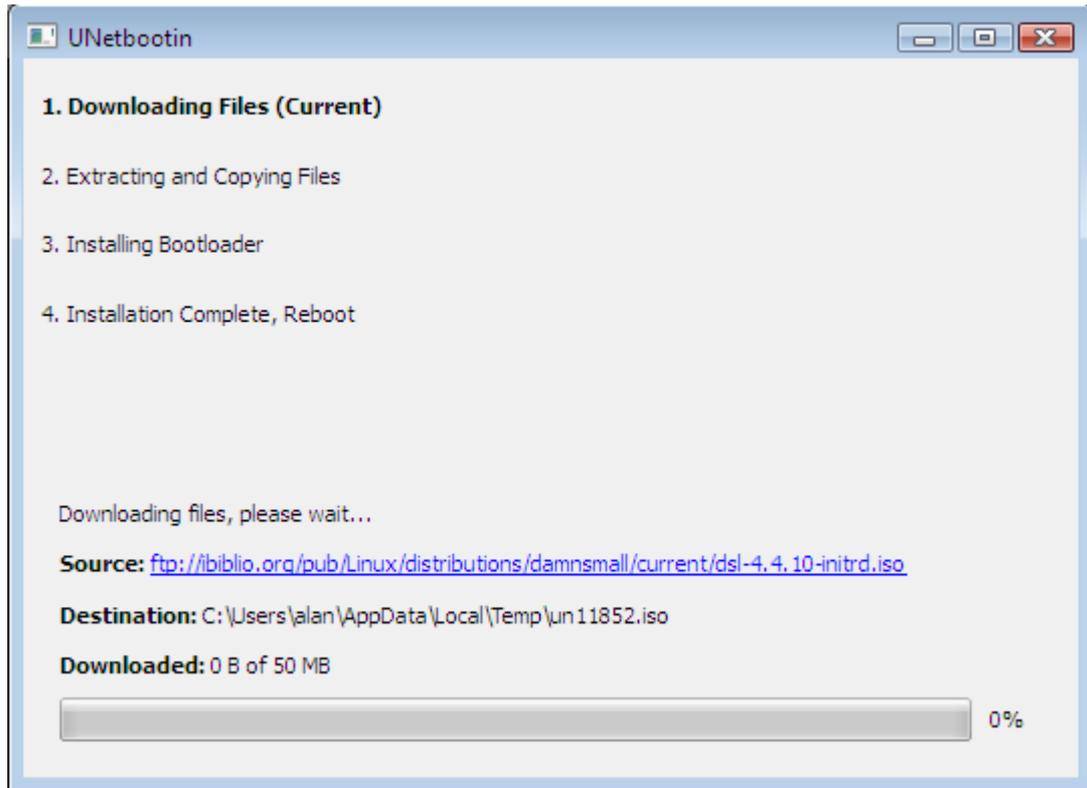
3. Run unetbootin
4. On the Distribution, select "Damn Small Linux".



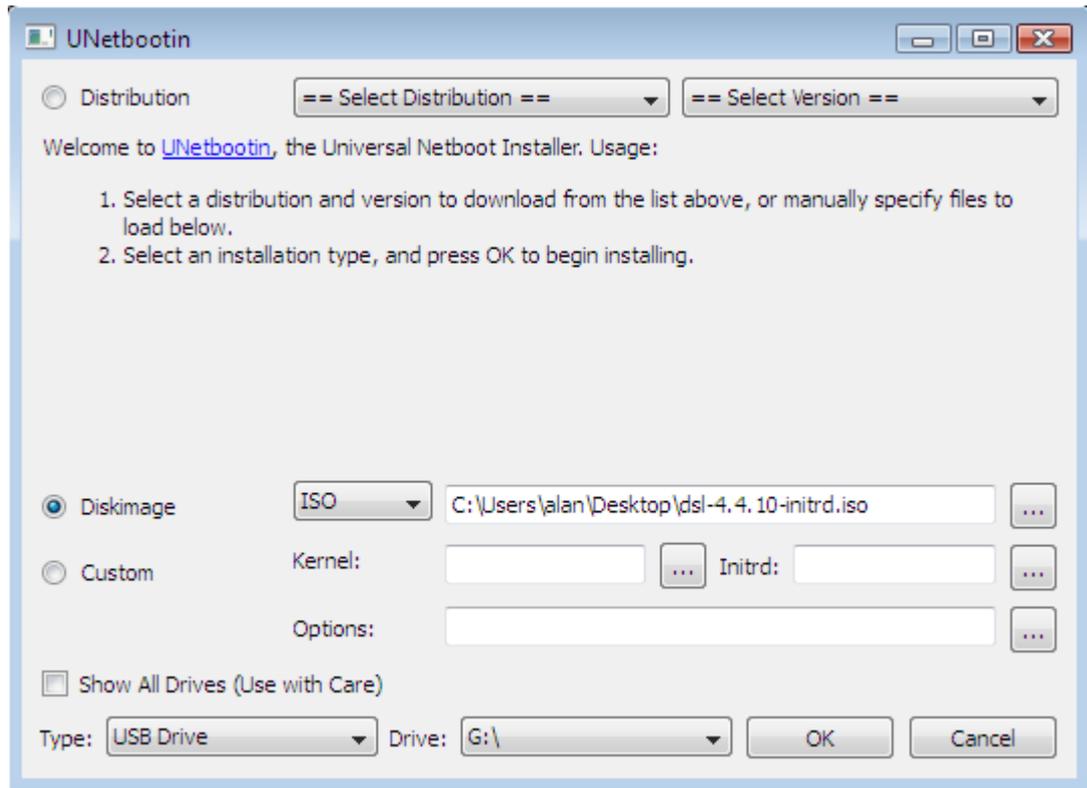
5. Make sure the Type on is USB Drive. Click OK to start download.



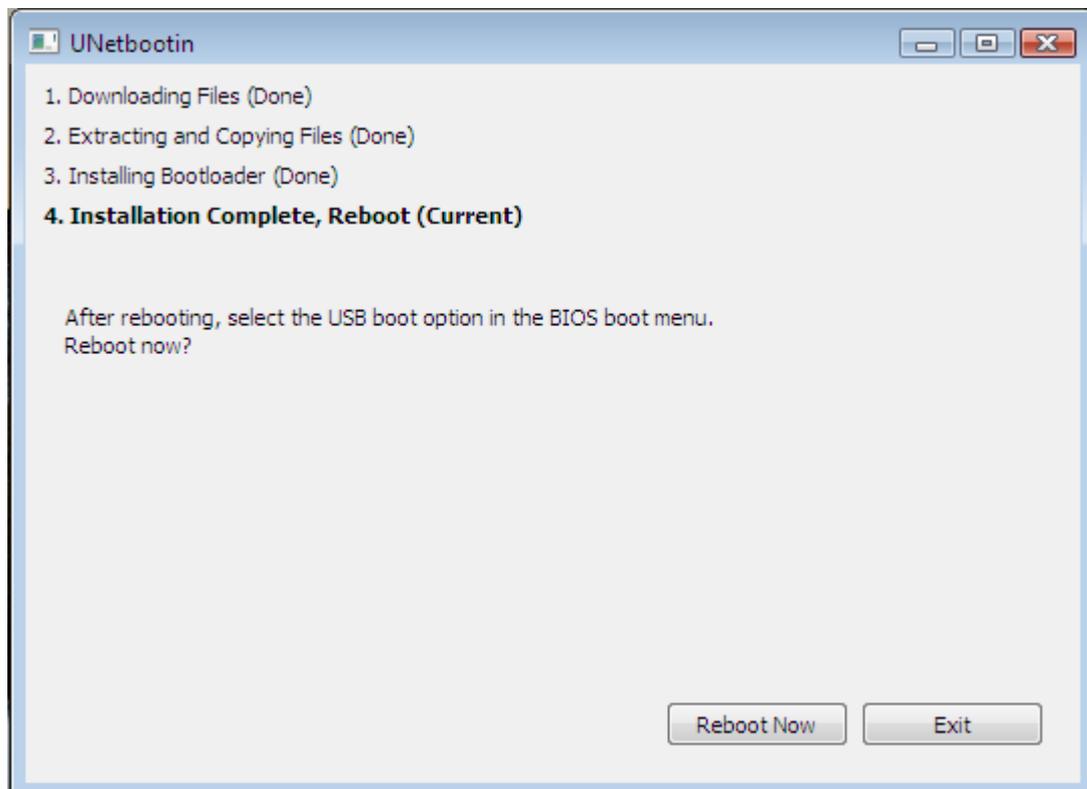
6. The program will download the file and install to the USB flash drive.



7. If you have problem on download the file, you can download the file manually through the following link:  
<ftp://ibiblio.org/pub/Linux/distributions/damnsmall/current/dsl-4.4.10-initrd.iso>  
Then choose Diskimage and select the file to proceed.



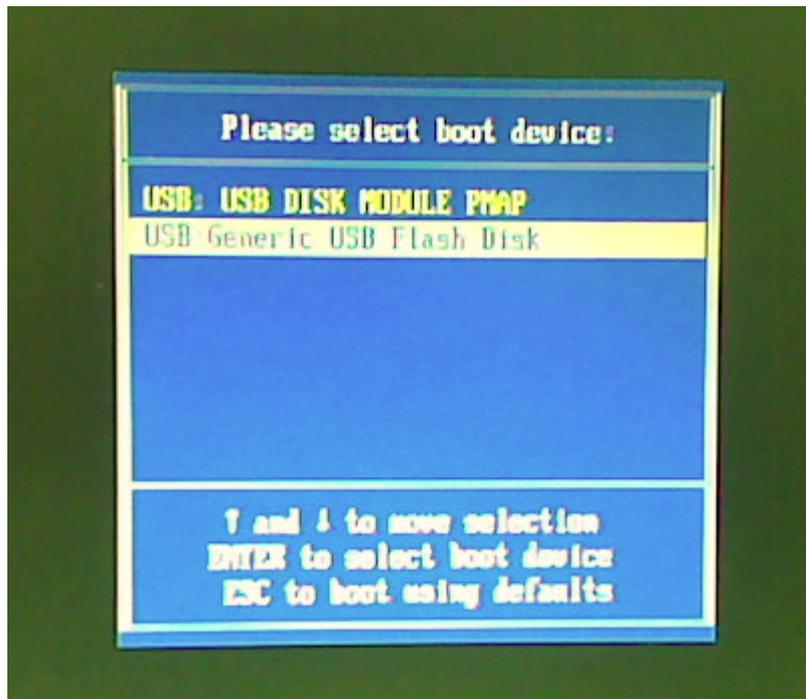
8. Click the Exit.



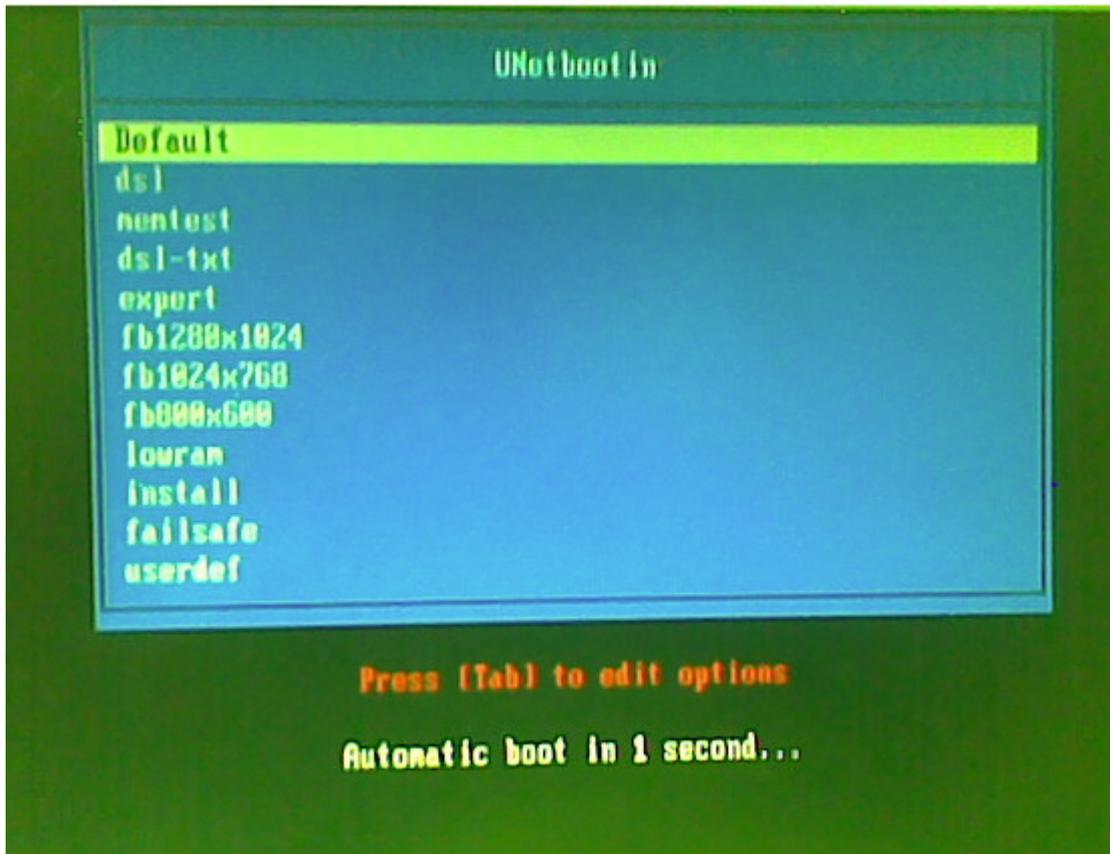
9. Copy your DOM image(s) to the USB flash drive.

**B. Use the USB boot disk to re-flash the DOM on the NAS.**

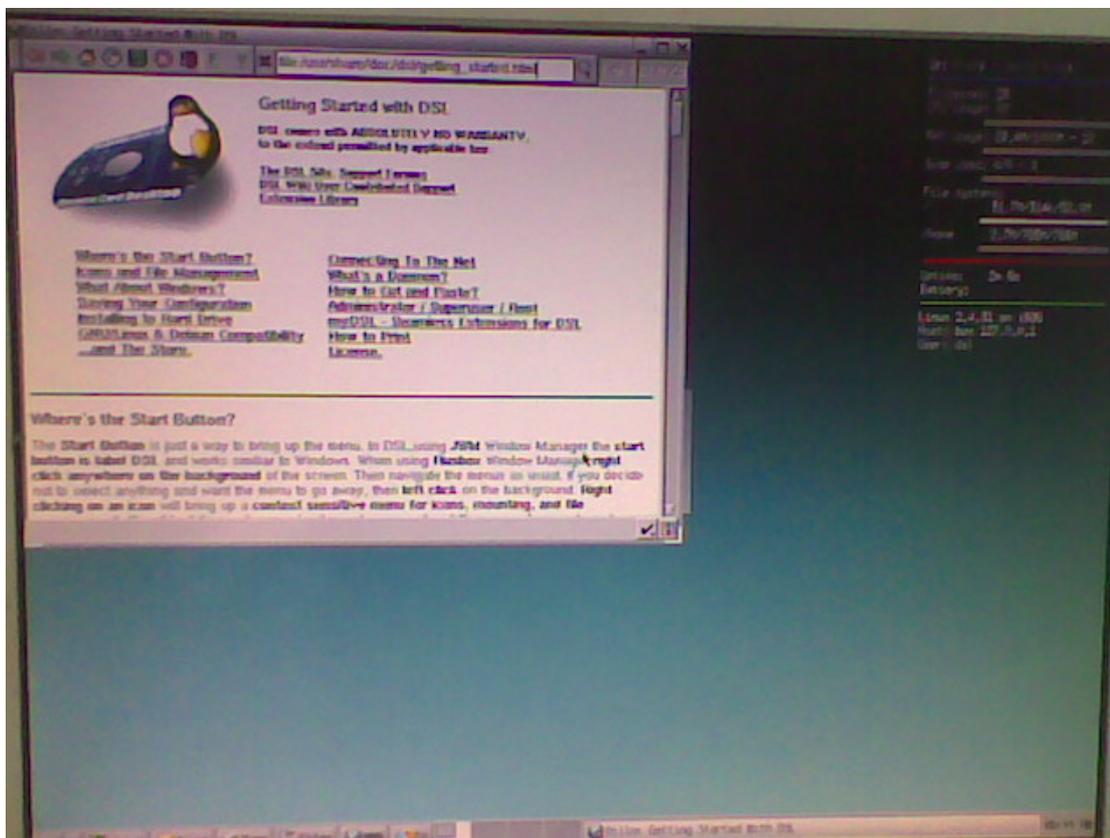
1. Plug a VGA monitor, USB keyboard and your Bootable USB flash drive on the back of your NAS. **Don't plug any HDD to the NAS.**
2. Turn on your NAS and press F11 key repeatedly.
3. Select the USB flash drive as your boot device. If there is no the menu, reboot the NAS again and repeat step 2. NOTE: If there is two USB device, **don't select USB DISK MODULE PMAP.**



4. On the following menu, select Default.



5. After boot up completely, you should see the following window.



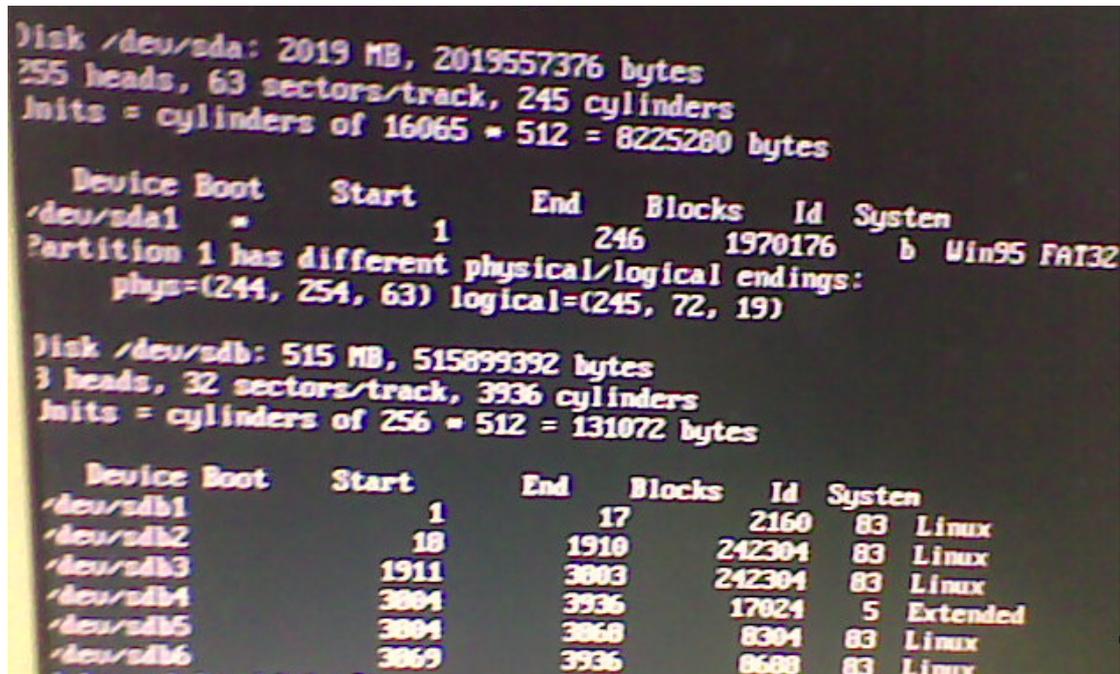
6. Press Ctrl+Alt+Del to enter command line.

7. Input the following command:

```
# sudo su
```

```
# fdisk -l
```

8. You should see the following result:



```
Disk /dev/sda: 2019 MB, 2019557376 bytes
255 heads, 63 sectors/track, 245 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sda1 *          1           246     1970176    b  Min95 FAT32
Partition 1 has different physical/logical endings:
   phys=(244, 254, 63) logical=(245, 72, 19)

Disk /dev/sdb: 515 MB, 515899392 bytes
3 heads, 32 sectors/track, 3936 cylinders
Units = cylinders of 256 * 512 = 131072 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1             1           17         2160    83  Linux
/dev/sdb2             18          1910     242304    83  Linux
/dev/sdb3             1911         3003     242304    83  Linux
/dev/sdb4             3004         3936     17024     5  Extended
/dev/sdb5             3004         3068         8304    83  Linux
/dev/sdb6             3069         3936         8688    83  Linux
```

/dev/sda is your flash drive. /dev/sdb which with about 128MB or 512MB size is your DOM that you want to reflash.

9. Input the following command:

```
# mkdir usbdrive
```

```
# mount /dev/sda1 /home/dsl/usbdrive
```

```
# cd /home/dsl/usbdrive
```

10. Input the following command:

```
# cp /usbdrive/dom.img /dev/sdb
```

“dom.img” is your firmware name, /dev/sdb is the drive name of your dom.

11. Reboot your NAS.

```
# reboot
```