

## Debian Kernel Rebuild Boot Problem: “Gave up waiting for root device” March 2012

After building a new Debian (6.0.4) kernel, I could not boot the computer.

I got this error message: “Gave up waiting for root device”

and the ALERT line said something about: root=UUID={stuff...}

I was dropped down to a shell prompt.

**The problem is** that GRUB cannot find the drive labeled UUID={stuff..} and cannot mount the root partition. The old standard to tell what the root partition was to use 'root=/dev/sda1' or 'root=/dev/hda1' but a newer way is to use 'root=UUID={stuff...}'. The UUID way is supposed to be a better way, except when grief appears.

**The temporary solution** to get the system booted is this:

1. Reboot the system. You can simply type 'reboot' at the shell prompt.
2. When the GRUB menu appears, select the kernel you previous could boot with and...
3. Press 'e'. You want to edit that set of GRUB commands for that kernel.
4. On the next screen (the editing screen), cursor to the line that looks something like:

```
linux /boot/vmlinuz-2.6.32-5-686 root=UUID=aaf43fa1-4598-12da-afd8-4567b318a56b ro quiet
```

5. Modify the part that says root=UUID={stuff...} to looks like:

```
linux /boot/vmlinuz-2.6.32-5-686 root=/dev/sda1 ro quiet
```

6. Notice the complete change to the 'root=' portion of the command  
The /dev/sda1 should be the partition where your '/' filesystem.  
Your computer may be /dev/sda2 or /dev/hda1 or /dev/hda2 or something similar.
7. If you didn't know, Linux names drives and partitions in this fashion:  
/dev/sda1 is the first SATA drive 'a'      first partition '1'  
/dev/sda2 is the first SATA drive 'a'      second partition '2'  
/dev/sdb3 is the second SATA drive 'b'    third partition '3'  
/dev/hdc4 is the third IDE drive 'c'      fourth partitions '4'

(I'll guess that /dev/sda1 is most-likely correct for most systems)

8. Press CTRL-X to boot. And it should !! This works only for this boot.

**The permanent solution:** Modify the GRUB configuration file:

With the newly reboot system, you need to become root (superuser) and edit the file called /etc/default/grub.  
The easiest way is this:

1. Open a TERMINAL and at the prompt type:

2. 'su' <enter> ...type the root password <enter>
3. type: 'gedit /etc/default/grub' <enter>  
Now you're editing the GRUB configuration file using text editor GEDIT.

4. Look for the line that says: (probably near the bottom of the file)

```
#GRUB_DISABLE_LINUX_UUID=true
```

5. Modify the line so that the '#' is removed.
6. File -> Save
7. File -> Quit
8. Type: 'update-grub' <enter>  
...and some processing happens....
9. Type 'reboot' <enter>

Done.

I hope this helped

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