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## Cannot Remove old Kernels from Full Boot Disk

Asked 7 years, 10 months ago   Modified 4 years, 7 months ago   Viewed 3k times

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I am unable to install or update any software on my machine.

5

Using my incredible powers of inference I deduced that /boot was full and was causing all my heartache.



```
notlinus@NS0:/boot$ df -h
```



Filesystem	Size	Used	Avail	Use%	Mounted on
udev	2.0G	4.0K	2.0G	1%	/dev
tmpfs	396M	656K	395M	1%	/run
/dev/mapper/NS0--vg-root	36G	3.6G	30G	11%	/
none	4.0K	0	4.0K	0%	/sys/fs/cgroup
none	5.0M	0	5.0M	0%	/run/lock
none	2.0G	0	2.0G	0%	/run/shm
none	100M	0	100M	0%	/run/user
/dev/sda1	236M	234M	0	100%	/boot

```
notlinus@NS0:/boot$ ls -l
```

```
total 229780
-rw-r--r-- 1 root root 1270654 Aug 12 2015 abi-3.19.0-26-generic
-rw-r--r-- 1 root root 1271100 Sep 1 2015 abi-3.19.0-28-generic
-rw-r--r-- 1 root root 1271518 Oct 3 00:54 abi-3.19.0-30-generic
-rw-r--r-- 1 root root 1271689 Oct 8 13:01 abi-3.19.0-31-generic
-rw-r--r-- 1 root root 1271689 Oct 22 13:14 abi-3.19.0-32-generic
-rw-r--r-- 1 root root 1271689 Nov 6 20:39 abi-3.19.0-33-generic
-rw-r--r-- 1 root root 1271691 Nov 23 16:57 abi-3.19.0-37-generic
-rw-r--r-- 1 root root 177632 Aug 12 2015 config-3.19.0-26-generic
-rw-r--r-- 1 root root 177651 Sep 1 2015 config-3.19.0-28-generic
-rw-r--r-- 1 root root 177730 Oct 3 00:54 config-3.19.0-30-generic
-rw-r--r-- 1 root root 177790 Oct 8 13:01 config-3.19.0-31-generic
-rw-r--r-- 1 root root 177790 Oct 22 13:14 config-3.19.0-32-generic
-rw-r--r-- 1 root root 177790 Nov 6 20:39 config-3.19.0-33-generic
-rw-r--r-- 1 root root 177790 Nov 23 16:57 config-3.19.0-37-generic
drwxr-xr-x 5 root root 1024 Feb 17 13:47 grub
-rw-r--r-- 1 root root 20754747 Aug 27 2015 initrd.img-3.19.0-26-generic
-rw-r--r-- 1 root root 20753554 Sep 9 06:29 initrd.img-3.19.0-28-generic
-rw-r--r-- 1 root root 20756217 Oct 6 07:03 initrd.img-3.19.0-30-generic
-rw-r--r-- 1 root root 20758684 Oct 22 13:04 initrd.img-3.19.0-31-generic
-rw-r--r-- 1 root root 20757000 Nov 5 06:55 initrd.img-3.19.0-32-generic
-rw-r--r-- 1 root root 20758873 Nov 10 07:17 initrd.img-3.19.0-33-generic
-rw-r--r-- 1 root root 20757964 Dec 2 06:54 initrd.img-3.19.0-37-generic
-rw-r--r-- 1 root root 3463561 Feb 17 13:46 initrd.img-3.19.0-39-generic
-rw-r--r-- 1 root root 3463563 Feb 17 13:47 initrd.img-3.19.0-42-generic
drwx----- 2 root root 12288 Aug 27 2015 lost+found
-rw-r--r-- 1 root root 176500 Mar 12 2014 memtest86+.bin
-rw-r--r-- 1 root root 178176 Mar 12 2014 memtest86+.elf
-rw-r--r-- 1 root root 178680 Mar 12 2014 memtest86+_multiboot.bin
-rw----- 1 root root 3626965 Aug 12 2015 System.map-3.19.0-26-generic
-rw----- 1 root root 3626779 Sep 1 2015 System.map-3.19.0-28-generic
-rw----- 1 root root 3627906 Oct 3 00:54 System.map-3.19.0-30-generic
-rw----- 1 root root 3628177 Oct 8 13:01 System.map-3.19.0-31-generic
-rw----- 1 root root 3628149 Oct 22 13:14 System.map-3.19.0-32-generic
-rw----- 1 root root 3628149 Nov 6 20:39 System.map-3.19.0-33-generic
-rw----- 1 root root 3628776 Nov 23 16:57 System.map-3.19.0-37-generic
-rw----- 1 root root 6570192 Aug 12 2015 vmlinuz-3.19.0-26-generic
-rw----- 1 root root 6568848 Sep 1 2015 vmlinuz-3.19.0-28-generic
```

```
notlinus@NS0:/boot$ uname -r
```

```
3.19.0-37-generic
```

```
notlinus@NS0:~$ sudo apt-get clean
```

```
notlinus@NS0:/boot$ sudo apt-get autoremove
```

```
Reading package lists... Done
Building dependency tree
Reading state information... Done
You might want to run 'apt-get -f install' to correct these.
The following packages have unmet dependencies.
  linux-image-extra-3.19.0-49-generic : Depends: linux-image-3.19.0-49-generic
but it is not installed
  linux-image-generic-lts-vivid : Depends: linux-image-3.19.0-49-generic but it
is not installed
                                Recommends: thermald but it is not installed
E: Unmet dependencies. Try using -f.
```

```
notlinus@NS0:/boot$ sudo dpkg --get-selections | grep linux-image
```

```
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name                               Version                               Architecture
Description
+++-----
un linux-image                         <none>                               <none>
(no description available)
un linux-image-3.0                     <none>                               <none>
(no description available)
rc linux-image-3.19.0-25-generic        3.19.0-25.26~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-26-generic        3.19.0-26.28~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-28-generic        3.19.0-28.30~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-30-generic        3.19.0-30.34~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-31-generic        3.19.0-31.36~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-32-generic        3.19.0-32.37~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-33-generic        3.19.0-33.38~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
ii linux-image-3.19.0-37-generic        3.19.0-37.42~14.04.1                 amd64
Linux kernel image for version 3.19.0 on 64 bit x86 SMP
in linux-image-3.19.0-39-generic        <none>                               amd64
(no description available)
in linux-image-3.19.0-42-generic        <none>                               amd64
(no description available)
in linux-image-3.19.0-49-generic        <none>                               amd64
(no description available)
rc linux-image-extra-3.19.0-25-generic  3.19.0-25.26~14.04.1                 amd64
Linux kernel extra modules for version 3.19.0 on 64 bit x86 SMP
ii linux-image-extra-3.19.0-26-generic  3.19.0-26.28~14.04.1                 amd64
Linux kernel extra modules for version 3.19.0 on 64 bit x86 SMP
ii linux-image-extra-3.19.0-28-generic  3.19.0-28.30~14.04.1                 amd64
Linux kernel extra modules for version 3.19.0 on 64 bit x86 SMP
```

```
notlinus@NS0:/boot$ sudo apt-get remove linux-image-3.19.0-26-generic
```

```

Reading package lists... Done
Building dependency tree
Reading state information... Done
You might want to run 'apt-get -f install' to correct these:
The following packages have unmet dependencies.
  linux-image-extra-3.19.0-26-generic : Depends: linux-image-3.19.0-26-generic
but it is not going to be installed
  linux-image-extra-3.19.0-49-generic : Depends: linux-image-3.19.0-49-generic
but it is not going to be installed
  linux-image-generic-lts-vivid : Depends: linux-image-3.19.0-49-generic but it
is not going to be installed
                                Recommends: thermald but it is not going to be
installed
E: Unmet dependencies. Try 'apt-get -f install' with no packages (or specify a
solution).

```

Im sure this must be a duplicate question but after searching around the solutions to similar questions did not alleviate my predicament.

Lastly, I am a RHEL admin so please excuse my apt ignorance - our BIND servers have to be on Ubuntu as a condition of some free colo space by our sister company. What am I doing wrong that caused this issue and how can I avoid it happening in future?

When I try similar solutions on this site such as [How do I free up more space in /boot?](#) I get:

```

notlinus@NS0:/boot$ sudo dpkg -f1 linux-{image,headers}-"[0-9]" | awk '/^ii/{
print $2}' | grep -v -e `uname -r | cut -f1,2 -d"- "` | grep -e '[0-9]' | xargs
sudo apt-get -y purge
You might want to run 'apt-get -f install' to correct these.
The following packages have unmet dependencies.
  linux-image-extra-3.19.0-26-generic : Depends: linux-image-3.19.0-26-generic
but it is not installed
  linux-image-extra-3.19.0-28-generic : Depends: linux-image-3.19.0-28-generic
but it is not installed
  linux-image-extra-3.19.0-30-generic : Depends: linux-image-3.19.0-30-generic
but it is not installed
  linux-image-extra-3.19.0-31-generic : Depends: linux-image-3.19.0-31-generic
but it is not installed
  linux-image-extra-3.19.0-32-generic : Depends: linux-image-3.19.0-32-generic
but it is not installed
  linux-image-extra-3.19.0-33-generic : Depends: linux-image-3.19.0-33-generic
but it is not installed
  linux-image-extra-3.19.0-49-generic : Depends: linux-image-3.19.0-49-generic
but it is not installed
  linux-image-generic-lts-vivid : Depends: linux-image-3.19.0-49-generic but it
is not installed
                                Recommends: thermald but it is not installed
E: Unmet dependencies. Try using -f.

```

[boot](#) [apt](#) [package-management](#) [kernel](#) [disk-usage](#)

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edited Apr 13, 2017 at 12:24



Community Bot

1

asked Mar 4, 2016 at 11:00




ZZ9

201

2

8

- 1 Possible duplicate of [Can't clean a full /boot because of unmet dependencies](#). I'd also recommend upgrading, as Vivid is no longer supported. – [mikewhatever](#) Mar 4, 2016 at 11:24 

Please see my update – [ZZ9](#) Mar 4, 2016 at 12:29

[This answer](#) provides a way of removing packages with unmet dependencies, if nothing else works. Namely, you need to use `sudo dpkg --force-all -P pkgname`. Script it if you want to, but it looks like that's the way to go. – [mikewhatever](#) Mar 4, 2016 at 12:51

### 3 Answers

Sorted by: Highest score (default) 



Thanks @mikewhatever,

5

`sudo dpkg --force-all -P pkgname` was the answer



So: `sudo dpkg --force-all -P linux-image-extra-3.19.0-26-generic` did it for me



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edited Oct 20, 2016 at 17:12

answered Mar 4, 2016 at 14:11



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[muru](#)

196k

53

482

736




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201

2

8



- 1 borrowing from [another answer](#), the command `echo $(dpkg --get-selections | grep linux-image | awk '{ print $2 }' | sort -V | sed -n '/$(uname -r)/q;p') $(dpkg --get-selections | grep linux-headers | awk '{ print $2 }' | sort -V | sed -n '/$(uname -r)/q;p') | xargs sudo dpkg --force-all -P` worked beautifully for me to pass all but the active kernel for removal. – [b\\_laoshi](#) Oct 8, 2019 at 7:55 



The problem is because you ran out of space on the /boot partition.

1



**NOTE: do not truncate the highest 2 initrd versions!**



After this `sudo apt autoremove -f` will succeed but it will take nearly forever to complete because it will rebuild initrd for all images and reinstall grub *twice* every time it removes one old kernel image. With 20 old kernel images it will rebuild the initrds nearly 400 times!

You can work around that ridiculous rebuilding by disabling the initrd generation tool:

```
sudo mv /etc/kernel/postinst.d/initramfs-tools /etc/kernel/postinst.d/initramfs-  
tools.real  
sudo ln -s /bin/true /etc/kernel/postinst.d/initramfs-tools
```

Then issue `sudo apt autoremove -f` and when you're done...

```
sudo rm /etc/kernel/postinst.d/initramfs-tools  
sudo mv /etc/kernel/postinst.d/initramfs-tools.real /etc/kernel/postinst.d/  
/initramfs-tools  
sudo /etc/kernel/postinst.d/initramfs-tools $( uname -r )
```

NOTE: If the running kernel isn't in /boot any more then you may need to supply the kernel version manually in place of `uname -r`

After you're done, consider manually installing a specific kernel such as the current one, and then enabling `apt-autoremove`. This will ensure you always have the chosen image to boot from, plus whatever the latest is.

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edited May 16, 2019 at 1:56

answered May 16, 2019 at 1:47

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Wil

775 6 10

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Why not `sudo rm -f /boot/*3.19.0-25.26*` and get more than one file ( `initrd.img-3.19.0-26-generic` ) at once? – WinEunuuchs2Unix May 16, 2019 at 1:53

---



If your issue is because of lack of space, then you might have a way out. If you look closely, then you can see:

0



Filesystem	Size	Used	Avail	Use%	Mounted on
/dev/sda1	236M	234M	0	100%	/boot



You will see that the size of the partition is 236M, while used is 234M. System has reserved 2 MB for such emergencies. Free it up for your use by issuing the command:



```
sudo tune2fs -m 0 /dev/sda1
```

You will have 2M of free space which might help you out of your situation.

Another way out will be to abandon that partition as boot entirely and use change the fstab (remove /boot ) and create a /boot on the root partition.

Copy everything over from the (now) old boot to new boot and then complete the commands.

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answered May 16, 2019 at 2:18



Domo N Car

876 6 12