How To Set Write Permission On ext4 Partition In Ubuntu Linux

Last updated December 16, 2016 By Abhishek Prakash — 71 Comments

When I last installed Ubuntu 13.04, I made an ext4 partition of around 80 Gb in notebook's HDD. The problem arouse when I tried to copy something on this partition. I was simply not able to copy anything in it or create a new file. Apparently, I did not have 'write permission' on the said partition. In this tutorial we'll see **how to set write permission on ext4 partition in Ubuntu**, in the correct way. Lets find out how to do it.

How to set write permission on ext4 partition in Ubuntu:

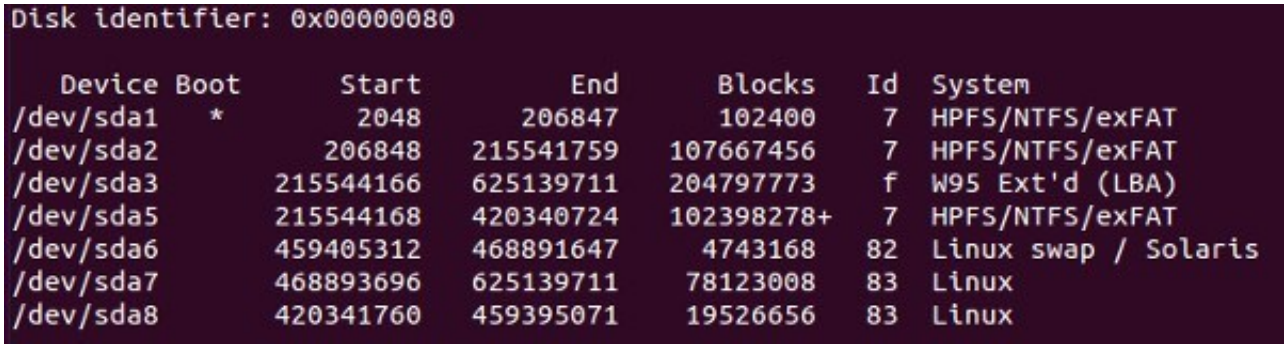
The tutorial is performed in Ubuntu 13.04 and uses extensively command line. A little knowledge about file ownership in Unix system would be a plus. Even if you do not know, no worries. You can still follow the tutorial with ease. Just follow the steps below:

Step 1:

First this, you need to know the UUID of the ext4 partition. But before that it will be better to know the name of partition. The name, in Ubuntu, would be like **sdaX** or something. To find that use the following command in terminal (Ctrl+Alt+T):

```
sudo fdisk -l
```

Output of the command will look like this:



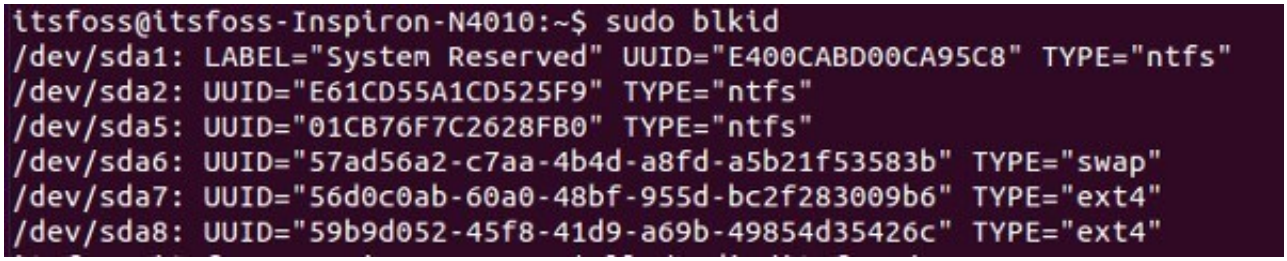
```
Disk identifier: 0x00000080

   Device Boot      Start         End      Blocks   Id  System
/dev/sda1   *        2048      206847      102400    7  HPFS/NTFS/exFAT
/dev/sda2          206848   215541759   107667456    7  HPFS/NTFS/exFAT
/dev/sda3       215544166   625139711   204797773    f  W95 Ext'd (LBA)
/dev/sda5       215544168   420340724   102398278+   7  HPFS/NTFS/exFAT
/dev/sda6       459405312   468891647     4743168   82  Linux swap / Solaris
/dev/sda7       468893696   625139711    78123008   83  Linux
/dev/sda8       420341760   459395071    19526656   83  Linux
```

You can find the name of the partition from its size, given under the Blocks

field (in bytes). So in the picture above 78123008 roughly amounts to 78 Gb and thus it tells me that the partition name is sda7. Now when we have the name, we can find the UUID by using the following command:

```
sudo blkid
```

Output of the command looks like this:



As you can see, with the partition name, we can easily identify the UUID.

Step 2:

Once we have the UUID, the next step is to find out where is the partition mounted. Usually the location of the ext4 mount is **/media/<user_name>**. Where user_name is your own username. You can display the mounted partitions in the following manner:

```
ll /media/<user_name>
```

Replace the <user_name> with your user name. The output of the command for me was this:

```
itsfoss@itsfoss-Inspiron-N4010:~$ ll /media/itsfoss/
total 56
drwxr-x---+ 5 root    root     4096 Jun 15 23:58 ./
drwxr-xr-x  4 root    root     4096 May  8 08:35 ../
drwx------  1 itsfoss itsfoss 20480 Jun 10 08:41 01CB76F7C2628FB0/
drwxrwxr-x  5 root    root     4096 Mar 26 21:21 56d0c0ab-60a0-48bf-955d-bc2f283009b6/
drwx------  1 itsfoss itsfoss 24576 Jun  7 07:28 E61CD55A1CD525F9/
```

Now you see why I took the trouble of finding the UUID. If you have several partition mounted, you need to distinguish between them. You can also see that only root has write on the mounted ext4 partition. We need to change the write permission for this partition here.

Step 3:

Now the easiest option is to give the write access to everyone using the infamous **chmod 777**. But again, you won't want to do that as it will give write access to anyone. Avoid using chmod 777 as far as it is possible. Now, if not chmod 777, then what else? The file has root as owner and root as the group. Even 'admin' comes under 'other' group here.

What we'll do here is to **change the group ownership of the mounted drive to admin**. The admin group is generally named **adm**. You can use the following command to change the group owner:

```
sudo chgrp adm /media/itsfoss/56d0c0ab-60a0-48bf-955d-bc2f283
```

Once you have changed the group, change the write permission for the group in the following manner:

```
sudo chmod g+w /media/itsfoss/56d0c0ab-60a0-48bf-955d-bc2f283
```

Voila! Now you can copy-paste and create new files in the ext4 partition without any hindrance. And with added security, non-admin users will not be able to do so. This tutorial is similar to what you need to do in order to auto mount Windows partition in Ubuntu. Any questions or suggestions are always welcomed. :)

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About Abhishek Prakash

I am a professional software developer, and founder of *It's FOSS*. I am an avid Linux lover and open source enthusiast. I use Ubuntu and believe in sharing knowledge. Apart from Linux, I love classic detective mysteries. I'm a huge fan of Agatha Christie's work.

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