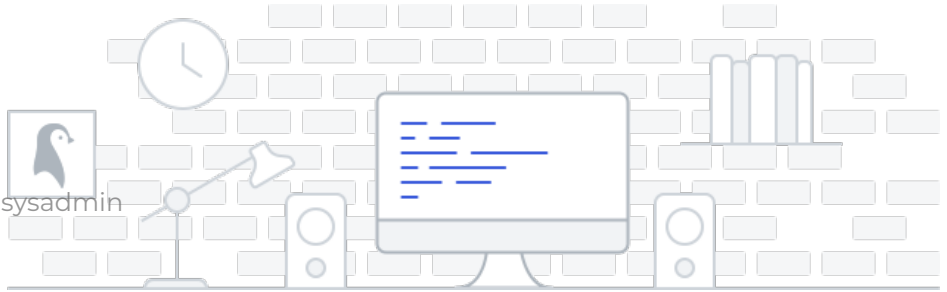




nixCraft

Linux and Unix tutorials for new and seasoned sysadmin



Linux: How to delete a partition with fdisk command

last updated July 30, 2007 in [CentOS](#), [Debian / Ubuntu](#), [File system](#), [Linux](#), [RedHat and Friends](#), [Suse](#), [Ubuntu Linux](#)

Q. My system comes with pre installed Linux and XP. Now I would like to delete a partition. How do I delete a partition?



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A. Hard disks can be divided into one or more logical disks called partitions. This division is described in the partition table found in sector 0 of the disk.

You need to use fdisk command. It is a menu driven program for creation and manipulation of partition tables. However this program needs the device name (hard disk name) to manipulate partitions. Usually you use following names

/dev/hda

/dev/hdb

/dev/sda

/dev/sdb

So,

=> /dev/hd[a-h] for IDE disks

=> /dev/sd[a-p] for SCSI disks

=> /dev/ed[a-d] for ESDI disks

=> /dev/xd[ab] for XT disks.

A device name refers to the entire hard disk. For more information see [Linux partition naming convention and IDE drive mappings](#).

Before typing any one of the following command(s) make sure you have the backup of important data.

First, get a listing of your current partition scheme, type the following command:

```
# fdisk -l.
```

Output:

```
Disk /dev/hda: 20.0 GB, 20060651520 bytes
255 heads, 63 sectors/track, 2438 cylinders
Units = cylinders of 16065 * 512 = 8225280
bytes
```

| Device | Boot | Start | End |
|-----------|------|-----------------|------|
| /dev/hda1 | | 1 | 1024 |
| 225248+ | b | W95 FAT32 | 8 |
| /dev/hda2 | * | 1025 | 2438 |
| 357955 | c | W95 FAT32 (LBA) | 11 |

```
Disk /dev/hdb: 80.0 GB, 80060424192 bytes
255 heads, 63 sectors/track, 9733 cylinders
Units = cylinders of 16065 * 512 = 8225280
bytes
```

| Device | Boot | Start | End |
|------------------|-----------|----------------------|-------------|
| /dev/hdb1 | * | 1 | 2432 |
| 535008+ | 83 | Linux | 19 |
| /dev/hdb2 | | 2433 | 2554 |
| 979965 | 82 | Linux swap / Solaris | |
| /dev/hdb3 | | 2555 | 6202 |
| 29302560 | 83 | Linux | |
| /dev/hdb4 | | 6203 | 9733 |
| 362757+ | 5 | Extended | 28 |
| /dev/hdb5 | | 6203 | 9733 |
| 362726 | 83 | Linux | 28 |

From above output I have two hard disks:

=> /dev/hda – 20 GB

=> /dev/hdb – 80 GB

Let us assume that you want to remove a partition from /dev/hdb disk. Type the following command:

```
# fdisk /dev/hdb
```

Output:

```
The number of cylinders for this disk is set to 9733.
There is nothing wrong with that, but this is larger than 1024,
and could in certain setups cause problems with:
 1) software that runs at boot time (e.g., old versions of LILO)
 2) booting and partitioning software from other OSs
    (e.g., DOS FDISK, OS/2 FDISK)

Command (m for help):
```

Now type p command to list partition:

```
Command (m for help): p
```

Output:

```
Disk /dev/hdb: 80.0 GB, 80060424192 bytes
255 heads, 63 sectors/track, 9733 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/hdb1   *           1       2432    535008+   83  Linux
```

```
/dev/hdb2          2433          2554
979965  82  Linux swap / Solaris
/dev/hdb3          2555          6202
 29302560  83  Linux
/dev/hdb4          6203          9733   28
362757+  5  Extended
/dev/hdb5          6203          9733   28
362726  83  Linux
```

Now let us say you want to delete /dev/hdb3 (3rd partition). Type the d command to delete a partition:

```
Command (m for help): d
Partition number (1-4): 3
```

It will prompt you for the partition number. Type 3:

Verify that partition deleted:

```
Command (m for help): p
```

Now save the changes and exit to shell prompt. Type the w command:

```
Command (m for help): w
```

Reboot the system.

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Posted by: Vivek Gite

The author is the creator of nixCraft and a seasoned sysadmin, DevOps engineer, and a trainer for the Linux operating system/Unix shell scripting. Get the **latest tutorials on**

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 30 comment

Annamalai.M September 26, 2006 at 3:17 pm

hi...
our organization having one server runing on Redhat Linux (scsi device).
now i need to install fedora on that machine.
1.Now my question is ,i can't delete the older scsi partitions while i insert fedora cd (to delete and to create partitions)
is there any way to delete this scsi partitions...
help me...
with regards
Annamalai

nixCraft September 27, 2006 at 8:28 pm

Run fdisk /dev/sdX while you are in RedHat itself. Remove the required partition. Save and reboot system.

Luca July 20, 2008 at 3:37 pm

Thank you!!
Nice tutorial! It explain very well, comprehensible also by beginners (like me!).

You saved my soul!

Ashish S January 20, 2009 at 6:18 pm

It's a really very helpful guidelines

excellent February 27, 2009 at 12:35 pm

excellent

<http://support.microsoft.com/kb/314458>

meetei September 9, 2009 at 5:39 am

Excellent tutorial ... it cleared my doubt ..

THANK YOU very much...

Mani October 1, 2009 at 7:08 am

Very Nice tut...

Syed Mustafa July 27, 2010 at 5:45 pm

Thank you so much sir.

This tutorial is really very helpful. Thanks

aloooooooooooooooooooooot!!!!!!!!!!!!!!

tati August 11, 2010 at 5:57 am

i follow the tutorial above until step> Command (m for help): d

Partition number (1-4): 3

but then it prompt Warning:partition 3 has empty type
i couldn't delete the partition.

please help
thank

Raju Enuula October 23, 2010 at 6:56 am

then you insert the new operating system bootable
cd/dvd and follow the instructions on the screen it will
install

nelsone January 26, 2011 at 5:28 am

The system can't boot after restart !!

WARNING: Re-reading the partition table failed with error

16: Device or resource busy.

The kernel still uses the old table.

The new table will be used at the next reboot.

Syncing disks.

Erufailon April 6, 2011 at 5:03 am

How can I merge the deleted partition of windows with
the partition of Ubuntu?

yoh-there April 17, 2011 at 1:21 pm

@Erufailon: for this, you best use gparted, preferably
through the (great!) sysrescue CD

<http://www.sysresccd.org/Download> (burn the iso file and boot with it)

M jagadeesh Varma September 23, 2011 at 2:35 am

its so helpfull to all the beginners thanx alot u are so clear in explaining without any confusion its really good

kaya September 28, 2011 at 1:25 pm

i want to remove linux from my laptop and remain with windows 7 only

jagadeesh varma October 19, 2011 at 12:58 pm

can any one guide me how to install the red hat linux 5.1 in vmware 7 as it is taking automatically not allowing us to give any configuration manually

anser November 22, 2011 at 5:07 pm

wow greate i need this type of guide to perform create ,delete,extend in my hdd thanks for sharing this

BBoy November 27, 2011 at 2:35 pm

Thank u bro!!! ;)

passerby December 26, 2011 at 9:06 am

Thanks a lot!

Gigi B February 16, 2012 at 10:47 am

Nice tutorial! Thanks!

EH59 March 26, 2012 at 5:17 pm

I followed all the steps suggested above, but when reboot my machine, it will not completely reboot. The following are the error showing:

Checking filesystem:

```
fsck.ext3: No such file or directory while trying to open  
/dev/sda7 [FAILED]
```

/dev/sda7 was the partition I deleted. Any suggestion as to how I can resolve this will be highly appreciated. Thanks all in advance

nalini May 11, 2012 at 3:07 pm

Thanks For helping me....

I was complete step by step procedure....

letuma May 18, 2012 at 4:21 am

I am using Ubuntu bootable disk to delete the partition which has intalled Ubuntu. This is the only partition in my hard disk. The fdisk utility doest not respond to the command: "fdisk -l", after sending this command, i get the command promp immediately below, without the system listing the partitions. As for "p" and "d" commands, the massage i get is "command not found".

PLEASE help

venugopal May 26, 2012 at 8:13 pm

I have dual boot(winxp and fedora 10) installed in my PC(i installed Xp first and then fedora). xp got corrupted due to some virus. now i can login to Fedora only. but really i need Xp.

i tried to boot from WINDOWS installation disk but a blank screen is coming due to no partitions available.

with the help of above command i am able to delete partition and able to boot Xp

Thanks A Lot...

Unreal August 2, 2012 at 10:41 am

Hello

I want to ask, can we use fdisk to mount HDD aswell ?
When using cfdisk to make partitions on my 2nd HDD, its cannot write my partition table as no partition is marked as bootable

I dont want bootable partition but just for /home and /var on my 2nd HDD

sundeeep August 6, 2013 at 5:05 am

i installed RHEL 6.2 in my machine and when i am trying to delete my partition it is saying your partition table is not valid what may be the problem.

Oleksandr July 16, 2015 at 10:34 am

was very easy even for the beginner like me

Ben August 30, 2015 at 10:23 pm

Hey, I enabled "developer mode" on my chromebook, and am trying to remove both sdc1 & 8 from my sandisk 64gb flash drive, labled sdc.I found out the partitions from the df command, but when I try to do anything with the fdisk command, it says "bash: fdisk: command not found". What do I do?? HELP!!!

Jobin January 2, 2016 at 5:14 am

Great tutorial it helps me lot.. :)

Bruno June 4, 2016 at 10:36 pm

Simply Awesome!
This tutorial was clear, concise and helpful. Please keep it up!
Cheers Lad.

Still, have a question? Get help on our forum!

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