

Table Of Contents

Table Of Contents 1

Step #1 : Partition the new disk using fdisk command 2

Step#2 : Format the new disk using mkfs.ext3 command 2

Step#3 : Mount the new disk using mount command 2

Step#4 : Update /etc/fstab file 2

Task: Label the partition 3

[Home](#) > [Faq](#) > [CentOS](#)

Linux Hard Disk Format Command

Posted by [Vivek Gite](#) <vivek@nixcraft.com>

Q. I've installed a new 250GB SATA hard disk on our office CentOS Linux server. How do I format a hard disk under Linux operating system from a shell prompt?

A.. There are total 4 steps involved for hard disk upgrade and installation procedure:

Step #1 : Partition the new disk using fdisk command

Following command will list all detected hard disks:

```
# fdisk -l | grep '^Disk'
```

[1]

Output:

```
Disk /dev/sda: 251.0 GB, 251000193024 bytes
Disk /dev/sdb: 251.0 GB, 251000193024 bytes
```

A device name refers to the entire hard disk. For more information see [Linux partition naming convention and IDE drive mappings](#) [2].

To partition the disk - /dev/sdb, enter:

```
# fdisk /dev/sdb
```

The basic fdisk commands you need are:

- **m** - print help
- **p** - print the partition table
- **n** - create a new partition
- **d** - delete a partition
- **q** - quit without saving changes
- **w** - write the new partition table and exit

Step#2 : Format the new disk using mkfs.ext3 command

To format Linux partitions using ext2fs on the new disk:

```
# mkfs.ext3 /dev/sdb1
```

Step#3 : Mount the new disk using mount command

First create a mount point /disk1 and use mount command to mount /dev/sdb1, enter:

```
# mkdir /disk1
# mount /dev/sdb1 /disk1
# df -H
```

Step#4 : Update /etc/fstab file

Open /etc/fstab file, enter:

```
# vi /etc/fstab
```

Append as follows:

/dev/sdb1	/disk1	ext3	defaults	1	2
-----------	--------	------	----------	---	---

Save and close the file.

Task: Label the partition

You can label the partition using `e2label`. For example, if you want to label the new partition `/backup`, enter

```
# e2label /dev/sdb1 /backup
```

You can use label name insted of partition name to mount disk using `/etc/fstab`:

```
LABEL=/backup /disk1 ext3 defaults 1 2
```

4000+ howtos and counting! Want to read more Linux / UNIX howtos, tips and tricks? Subscribe to our [daily email](#) newsletter or [weekly newsletter](#) to make sure you don't miss a single tip/tricks. Alternatively, subscribe via [RSS/XML](#) feed.

Article printed from Frequently Asked Questions About Linux / UNIX: <http://www.cyberciti.biz/faq/>

URL to article: <http://www.cyberciti.biz/faq/linux-disk-format/>

URLs in this post:

[1] Image: <http://www.cyberciti.biz/faq/faq/category/linux/>

[2] Linux partition naming convention and IDE drive mappings: <http://www.cyberciti.biz/faq/linux-partition-naming-convention-and-ide-drive-mappings/>