

## Disk quota on CentOS 7 (example)

In this example I use disk **/dev/sdc** to create a filesystem and setup quota.  
The username that writes files is **linuser**.

I use **/dev/sdc**  
(I do not partition, so use the whole disk)

I check the availability of the disk.

```
# lsblk -f | grep sdc  
sdc
```

The disk is not in use.

1. Create filesystem on sdc

```
# mkfs /dev/sdc  
mke2fs 1.42.9 (28-Dec-2013)  
/dev/sdc is entire device, not just one partition!  
Proceed anyway? (y,n) y
```

2. Create a mountpoint.

```
# mkdir /mnt/sdc
```

3. Add a line to /etc/fstab

```
/dev/sdc /mnt/sdc ext2 defaults,usrquota,grpquota 1 2
```

4. Mount the filesystem.

```
# mount /dev/sdc
```

5. Check that quota is enabled.

```
# mount | grep sdc  
/dev/sdc on /mnt/sdc type ext2 (rw,relatime,quota,usrquota,grpquota)
```

6. I create the quota files in /mnt/sdc and ignore the quotacheck warnings.

```
# quotacheck -cugv /mnt/sdc
```

7. Edit the quota user and group files and activate quota.

```
# edquota -u linuser  
Disk quotas for user linuser (uid 1000):  
Filesystem blocks soft hard inodes soft hard  
/dev/sdc 0 1024 1024 0 0 0
```

```
# edquota -g linuser  
Disk quotas for group linuser (uid 1000):  
Filesystem blocks soft hard inodes soft hard  
/dev/sdc 0 1024 1024 0 0 0
```

```
# quotaon -a
```

8. Allow the linuser to write to /mnt/sdc (really blunt)

```
# chmod 777 /mnt/sdc
```

9. Switch user linuser.

```
# su - linuser
```

10. Write a file to /mnt/sdc

```
# cd /mnt/sdc
```

```
# dd if=/dev/zero of=offlimits count=10 bs=1M
```

```
sdc: write failed, user block limit reached.
```

```
dd: error writing 'offlimits': Disk quota exceeded
```

```
1+0 records in
```

```
0+0 records out
```

```
1044480 bytes (1.0 MB) copied, 0.0429398 s, 24.3 MB/s
```

11. Switch back to root and run a report.

```
# exit
```

```
# repquota -as
```

```
*** Report for user quotas on device /dev/sdc
```

```
Block grace time: 7days; Inode grace time: 7days
```

User		used	Space limits			File limits			
			soft	hard	grace	used	soft	hard	grace
root	--	20K	0K	0K		2	0	0	
linuser	--	1024K	1024K	1024K		1	0	0	