How to Fix Quotas

Overview

Warnings:
- We enable quotas by default on new installations.
- If you disable and then reenable quotas, servers that use the XFS® filesystem and run CentOS 7, CloudLinux™ 7, or Red Hat® Enterprise Linux (RHEL) 7 require additional actions for quotas to function properly:
    - **WHM Interface** — Use WHM's *Initial Quota Setup* interface (*WHM >> Home >> Server Configuration >> Initial Quota Setup*) to configure quotas.
    - **Command Line** — Run the `/scripts/fixquotas` script and then reboot the server.
    - **Manually via the Command Line** — For instructions on how to perform the `/usr/local/cpanel/scripts/fixquotas` script's actions manually, read the Red Hat XFS and XFS Quota Management documentation.
- If you have enabled *Quota System Administration* notifications, the system sends notifications when it is ready to reboot **and** when the quota scan finishes and quotas are functional.
- CloudLinux 7 updates may break quotas. For this reason, after each CloudLinux 7 update, you **must** run the `/usr/local/cpanel/scripts/fixquotas` script and then reboot the server.

This document describes how to confirm whether you properly configured the disk space quotas on your system's devices.

- You **must** enable quotas for any device on which cPanel accounts exist.
- cPanel & WHM versions 76 and later enable quotas by default on new installations.

Fix quotas

To verify whether your devices use quotas, perform the following actions:

Important:
You **must** log in as the `root` user via SSH on your system before you perform these actions.

Run the mount command

Run the `mount` command to obtain basic information about currently-mounted file systems.

When you run this command without any arguments, the system displays information for all of its mounted file systems.

Note:
Entries that contain the `usrquota` variable are quota-enabled.

The following example confirms that the `/dev/mapper/VolGroup00-LogVol00` device uses quotas:

```
/dev/mapper/VolGroup00-LogVol00 on / type ext3 (rw,usrquota)
proc on /proc type proc (rw)
sysfs on /sys type sysfs (rw)
devpts on /dev/pts type devpts (rw,gid=5,mode=620)
/dev/sda1 on /boot type ext3 (rw)
tmpfs on /dev/shm type tmpfs (rw)
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)
/usr/tmpDSK on /tmp type ext3 (rw,noexec,nosuid,loop=/dev/loop0)
/tmp on /var/tmp type none (rw,noexec,nosuid,bind)
sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw)
```

Note:
For more information about the `mount` command, visit the mount command documentation.

Examine the `fstab` file contents

The file system table (`fstab`) file maps devices to their respective mount points within a system.

The contents of the `fstab` file will resemble the following example:

Remember:
Entries that contain the `usrquota` variable are quota-enabled.

```
/dev/sda5       /backup      ext3  defaults,noexec 0 0
LABEL=/boot              /boot                    ext3    defaults,usrquota
1 2
tmpfs                   /dev/shm                 tmpfs   defaults        0 0
devpts                  /dev/pts                 devpts  gid=5,mode=620  0 0
sysfs                   /sys                     sysfs   defaults        0 0
proc                    /proc                    proc    defaults        0 0
/dev/sda5       /swap                    swap    defaults        0 0
/usr/tmpDSK             /tmp                     ext3    defaults,noauto
0 0
```

The `fstab` system configuration file displays configuration options in six columns. These options determine the purpose of each file system and how it should mount.

Column	Description	Example
Device	The physical device that contains the data.	`/dev/sda5`
Mountpoint	The filepath to the device's data storage location.	`/backup`
FStype	The type of file system.	`ext3`
Options	The mount options for the file system. These options include whether quotas are enabled and whether the system or users can execute programs on the device.	`defaults,noexec`
Dump	The `dump` option. The `dump` backup utility uses this option.	`0`

| Pass | The `fsck` option. The `fsck` file checking utility uses this option. | 0 |

> **Notes:**
> - The *Dump* and *Pass* values do not impact quotas.
> - For more information about the `fstab` file, visit the [fstab command documentation](#).

How to enable quotas

After you verify which devices do not use quotas, perform the following steps to enable quotas for the desired devices.

Specify quotas in the `fstab` file

To enable quotas on a device, open the `/etc/fstab` file with a text editor and add the `usrquota` string to the *Options* column. Use spaces and tabs to create blank spaces between entries, for example:

```
LABEL=/boot                     /boot                    ext3    defaults,usrquota
1 2
```

After you edit the `fstab` file, run the `mount` and `remount` commands to remount the file system.

For example, to remount the `/dev/mapper/VolGroup00-LogVol00` device, run the following command:

```
mount -o remount /boot
```

> **Note:**
> The `-o` argument passes an option to the `mount` utility.

Verify that you enabled quota files

After you edit the `/etc/fstab` file, confirm that the quota files exist in the root directory (`/`) and that each file is greater than `0` bytes.

Use the `ls` command with a wildcard character. For example:

```
root@host [/]# ls -l /*.user
-rwxr--r-- 1 root root 13312 Apr 26 16:39 /aquota.user*
-rwxr--r-- 1 root root    32 Apr 19 16:26 /quota.user*
```

> **Note:**
> The example above uses the `ls` command to list the contents of the root directory (`/`). The `-l` flag causes `ls` output to display in long listing format. This format displays the following information:
>
> - The file's permissions.
> - Which user owns the file.
> - Which group owns the file.
> - The size of the file in bytes.
> - The file's last modification date.

If these files do **not** exist, run the `/scripts/initquotas` script to create the files.

If these files **do** exist but quotas do not function, delete these files and then run the `/scripts/initquotas` or `/scripts/fixquotas` scripts.

Ensure quotas report on the system

Run the following command to confirm that you successfully enabled quotas on the device:

```
repquota -a
```

This command prints all of the file systems that exist in the `/etc/mtab` filem with read and write privileges and quota options enabled.

What if my quotas still do not function?

If you experience further problems, perform one of the following actions:

- Disable the *Cache disk quota information* option in the *System* section of WHM's *Tweak Settings* interface (*WHM >> Home >> Server Configuration >> Tweak Settings*).
- Set the `disablequotacache` parameter to `0` in the `/var/cpanel/cpanel.config` file.

If you still experience problems with quotas, open a support ticket.

A note about Virtuozzo®

If you use Virtuozzo, you **must** perform the following actions:

1. Enable second-level (per-user) quotas in addition to first-level (per-container) quotas.
2. Enable second-level quotas from the parent node.

For more information, visit our Enable Quotas on a Virtuozzo VPS documentation.

Additional documentation

Suggested documentation For cPanel users For WHM users For developers

- How to Fix Quotas

- How to Disable Filesystem Quotas

- Overselling

Content by label

There is no content with the specified labels

- How to Fix Quotas

- How to Disable Filesystem Quotas

- Overselling

- UAPI Functions - Ftp::set_quota

- WHM API 0 Functions - editquota

- UAPI Functions - Quota::get_quota_info
- UAPI Modules - Quota
- WHM API 1 Functions - editquota