

# How to Manage your Hard Drive Space

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## Overview

This document provides steps to help you to manage your server's hard drive space.

**Important:**

We **strongly** recommend that you keep **at least** 10% of your server's available disk space free.

## Examine disk space usage

To examine your system's disk space usage, run the following command:

```
df -h
```

The output will resemble the following example:

```
Filesystem      Size  Used Avail Use% Mounted on
/dev/mapper/LogVol100 288G 189G   85G  70% /
/dev/sda1        99M   47M   48M  50% /boot
tmpfs           252M     0  252M   0% /dev/shm
/usr/tmpDSK     485M   11M  449M   3% /tmp
```

This output indicates that the system's main storage device (`/dev/mapper/LogVol100`) in the root (`/`) directory uses 70% of its available disk space and contains 85 GB of free space.

## Examine disk space usage by file and directory

If your system currently uses too much disk space, perform the following steps to identify files to delete:

1. To determine which files and directories consume most of your hard drive space, run the `du` command.

The output will resemble the following example:

```
372K  ~
107M  etc
113 G home
253M  lib
20K   LICENSE
2.6M  locale
16K   lost+found
64K   mbox_backup
8.0K  media
8.0K  mnt
418M  opt
0     proc
12M   pub
4.0K  pub-htaccess.txt
648K  templates
14K   tmp
64K   tools
5.4G  /var
```

**Notes:**

- We recommend that you **only** run this command in off-peak hours to prevent additional load on your server.
- The numbers in the left column represent the sizes of the files and directories that the working directory contains, in human-readable format.

In this example, the `/home` directory, which generally contains the system's cPanel account data, uses the most disk space (113 GB). Because in most cases you cannot delete your users' data, examine the second largest directory (the `/var` directory) for disk usage data.

2. To examine the desired directory, run the following command:

```
du -sh /var/*
```

The output will resemble the following example:

```
12K /var/account
4.0K /var/aptitude
28K /var/aquota.user
938M /var/cache
559M /var/cpanel
4.0K /var/cvs
24K /var/db
32K /var/empty
8.0K /var/games
173M /var/lib
8.0K /var/local
36K /var/lock
3.7G /var/log
0 /var/mail
10M /var/named
8.0K /var/nis
8.0K /var/opt
44K /var/portsentry
8.0K /var/preserve
144K /var/profiles
16K /var/proftpd
16K /var/proftpd.delay
4.0K /var/proftpd.pid
4.0K /var/proftpd.scoreboard
8.0K /var/quota.user
8.0K /var/racoon
1.2M /var/run
16M /var/spool
4.0K /var/state
14K /var/tmp
4.0K /var/vzquota
44K /var/www
20K /var/yp
```

This output indicates that the `/var/logs/` directory uses the most disk space.

**Note:**

Log files use disk space quickly. To retain recent log file entries, perform the additional steps in the [Retain log entries](#) section below.

3. Repeat this process until you locate files that you wish to remove.
4. To delete the desired files, run the following command, where `filename` represents the file to remove:

```
rm -f filename
```

**Warning:**

Exercise caution when you run the `rm` utility. You **cannot** recover files or directories that you delete.

## Retain log entries

Log files often use a large amount of disk space. To retain the system's most recent log file entries when you remove excess log files, perform the following steps:

1. If you have not already located the specific files to remove from this directory, run the `du` command.
2. Examine the command's output to determine the files to delete.
3. For each file, run the following commands, where `filename` represents the file's name.

```
tail -5000 filename > filename.new
mv filename.new filename
sync
```

4. To release the file lock, [restart the service that created the file](#).

## SMART errors

**Warning:**

Self-Monitoring, Analysis and Reporting Technology (SMART) errors may indicate hard disk failures or other problems. **Only** disable SMART errors if you understand these risks.

To disable SMART errors, run the following commands:

```
touch /var/cpanel/disableSMARTcheck
/scripts/upcp
```

## Additional documentation

[Suggested documentation](#) [For cPanel users](#) [For WHM users](#) [For developers](#)

- [How to Troubleshoot High Disk IO Problems](#)
- [How to Clear a Full Partition](#)
- [How to Clean Unmanaged Log Files](#)
- [How to Manage your Hard Drive Space](#)

## Content by label

There is no content with the specified labels



- [How to Troubleshoot High Disk IO Problems](#)
- [How to Clear a Full Partition](#)
- [How to Clean Unmanaged Log Files](#)
- [How to Manage your Hard Drive Space](#)
- [cPanel API 1 Functions - DiskUsage::showmanager](#)

- cPanel API 1 Modules - DiskUsage
- cPanel API 2 Functions - DiskUsage::clearcache
- cPanel API 2 Functions - DiskUsage::fetch\_raw\_disk\_usage
- cPanel API 2 Functions - DiskUsage::fetchdiskusagewithextras