

# SteamCMD



The **Steam Console Client** or **SteamCMD** is a command-line version of the Steam client. Its primary use is to install and update various dedicated servers available on Steam using a command-line interface. It works with games that use the [SteamPipe](#) content system. All games have been migrated from the deprecated [HLDSUpdateTool](#) to SteamCMD.

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## Downloading SteamCMD

### Windows

1. Create a folder for SteamCMD.

*For example*

```
C:\steamcmd
```

2. Download SteamCMD for Windows: <https://steamcdn-a.akamaihd.net/client/installer/steamcmd.zip>

3. Extract the contents of the zip to the folder.

### Linux

1. First install the dependencies required to run SteamCMD.

Ubuntu/Debian 64-Bit

```
sudo apt-get install lib32gcc1
```

RedHat/CentOS

```
yum install glibc libstdc++
```

RedHat/CentOS 64-Bit

```
yum install glibc.i686 libstdc++.i686
```

2. It is recommended to create a separate user for SteamCMD. In any case, do **not** run it as *root*, which can cause a serious security risk! Run the following command as root to create the *steam* user, and login as it:

```
useradd -m steam
su - steam
```

(If you prefer using `sudo`, simply run the previous commands prefixed with `sudo`.)

### 3. Create a directory for SteamCMD and switch to it.

```
mkdir ~/steamcmd  
cd ~/steamcmd
```

### 3. Download SteamCMD for Linux.

```
wget https://steamcdn-a.akamaihd.net/client/installer/steamcmd\_linux.tar.gz
```

### 4. Extract the contents to the directory.

```
tar -xvzf steamcmd_linux.tar.gz
```

## OS X

### 1. Open Terminal.app and create a directory for SteamCMD.

```
mkdir ~/steamcmd  
cd ~/steamcmd
```

### 2. Download SteamCMD for OS X.

```
curl -O https://steamcdn-a.akamaihd.net/client/installer/steamcmd\_osx.tar.gz
```

### 3. Extract the contents to the directory.

```
tar -xvzf steamcmd_osx.tar.gz
```

## Running SteamCMD

*On first run SteamCMD will automatically update and enter you in to a Steam> prompt. Type help for more information.*

## Windows

Open a Command Prompt and start SteamCMD.

```
cd C:\steamcmd  
steamcmd
```

## Linux/OS X

Open a terminal and start SteamCMD.

```
cd ~/steamcmd  
./steamcmd.sh
```

## SteamCMD Login

### Anonymous

To download most game servers, you can login anonymously.

```
login anonymous
```

### With a Steam account

Some servers require you to login with a Steam Account.

For security reasons it is recommended that you create a new Steam account just for your dedicated servers.

A user can only be logged in once at any time (counting both graphical client as well as SteamCMD logins).

```
login <username>
```

Next enter your password.

If Steam Guard is activated on the user account, check your e-mail for a Steam Guard access code and enter it. This is only required the first time you log in (as well as when you delete the files where SteamCMD stores the login information).

You should see a message stating that you have successfully logged in with your account.

## Downloading an app

1. Start SteamCMD and log in.
2. Set your app install directory. (Note: use forward slashes for Linux/OS X and backslashes for Windows.)

```
force_install_dir <path>
```

e.g. a directory named `cs_go` inside the current directory:

```
force_install_dir ./cs_go/
```

**For Windows:** `force_install_dir c:\cs_go\`

3. Install or update the app using the `app_update` command (supplying a [Steam Application ID](#)). To also validate the app, add `validate` to the command. To download a beta branch, use the `-beta <betaname>` option – for example, the HLDS beta branch is named `beta` and the SrcDS beta branch is named `prerelease`. Some beta branches are protected by a password; to be able to download from them, also add the `-betapassword <password>` option.

```
app_update <app_id> [-beta <betaname>] [-betapassword <password>] [validate]
```

HLDS is a special case: the App ID is always 90 and a mod must be chosen first. This is done by setting the app config option `mod` to the requested value.

```
app_set_config <app_id> <option_name> <option_value>
```

Example: Install and validate the Counter Strike: Global Offensive dedicated server:

```
app_update 740 validate
```

Example: Install and validate HLDS with Team Fortress Classic:

```
app_set_config 90 mod tfc
app_update 90 validate
```

#### ⚠ Bug:

HLDS (appid 90) currently requires multiple runs of the `app_update` command before all the required files are successfully installed. Simply run `app_update 90 validate` multiple times until no more updates take place.

Example: Install and validate beta version of HLDS (Half-Life):

```
app_update 90 -beta beta validate
```

Example: install and validate beta version of the Counter Strike: Source dedicated server:

```
app_update 232330 -beta prerelease validate
```

Example: install and validate a private beta version of the Natural Selection 2 dedicated server (name `alpha`, password `natsel`):

[beta name] is the name of the private beta branch

[beta code] is the password for the private beta branch

```
app_update 4940 -beta alpha  
-betapassword natsel validate
```

3. Once finished, type `quit` to properly log off of the Steam servers.

```
quit
```

## Validate

```
validate
```

Validate is a command that will check all the server files to make sure they match the SteamCMD files. This command is useful if you think that files may be missing or corrupted.

⚠ Validation will overwrite any files that have been changed. This may cause issues with customized servers. For example, if you customize `mapcycle.txt`, this file will be overwritten to the server default. Any files that are not part of the default installation will not be affected.

It is recommended you use this command only on initial installation and if there are server issues.

## Supported Servers

A list of known servers that use SteamCMD to install is available on the [Dedicated Servers List](#) page. Note that

any extra commands listed need to be executed before the app\_update line.

## Automating SteamCMD

There are two ways to automate SteamCMD.

(Replace steamcmd with ./steamcmd.sh on Linux/OS X.)

### Command line

When using the -beta option on the command line, it must be quoted in a special way, such as +app\_update "90 -beta beta".

If this does not work, try putting it like "+app\_update 90 -beta beta" instead.

Append the commands to the command line prefixed with plus characters, e.g.:

```
steamcmd +login anonymous  
+force_install_dir ../csgo_ds  
+app_update 740 +quit
```

To install a specific game mod for HL1, such as Counter-Strike: Condition Zero:

```
steamcmd +login anonymous  
+force_install_dir ../czero  
+app_set_config 90 mod czero  
+app_update 90 +quit
```

For a game that requires logins, like Killing Floor:

```
steamcmd +login <username>  
<password> +force_install_dir
```

```
c:\KFServer\ +app_update 215350  
+quit
```

## Creating a script

1. Put your SteamCMD commands in a text file. (You may add comments which start with //.) Example:

```
// update_csgo_ds.txt  
//  
@ShutdownOnFailedCommand 1  
//set to 0 if updating multiple  
servers at once  
@NoPromptForPassword 1  
login <username> <password>  
//for servers which don't need  
a login  
//login anonymous  
force_install_dir ../csgo_ds  
app_update 740 validate  
quit
```

2. Run SteamCMD with the +runscript option, referring to the file you created previously. Example:

```
steamcmd +runscript csgo_ds.txt
```

## Cross-Platform Installation

It is possible to choose the platform for which SteamCMD should download files, even if it isn't the platform it is currently running on. This is done using the @sSteamCmdForcePlatformType variable. (Yes, those are two "s"es at the beginning of the variable name.) For example, to download the Windows CSGO dedicated server on Linux, you can run the following command:

```
./steamcmd.sh
+@sSteamCmdForcePlatformType
windows +login anonymous
+force_install_dir ../csgo_ds
+app_update 740 validate +quit
```

or use the following script:

```
@ShutdownOnFailedCommand 1
@NoPromptForPassword 1
@sSteamCmdForcePlatformType
windows
login anonymous
force_install_dir ../csgo_ds
app_update 740 validate
quit
```

The supported values  
are windows, macos and linux.

## Windows Software/Scripts

### SteamCMD AutoUpdater

Install and automatically update any game server

GitHub

Repo: <https://github.com/C0nw0nk/SteamCMD-AutoUpdate-Any-Gameserver>

### condenser

[condenser](#) is a bootstrapper for installing, configuring, & launching Steam dedicated server apps.

### SteamCMD GUI

This tool allows the user to use SteamCMD on Windows without command lines and/or batch files.

GitHub

Repo: <https://github.com/DioJoestar/SteamCMD-GUI>

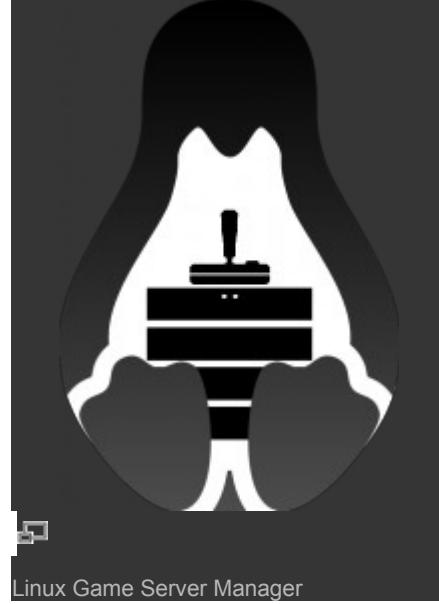
## SteamCMD Guardian 1.2

View and download

here: <http://pastebin.com/BRUbsGQh>

## Linux Scripts

## Linux Game Server Managers



The Linux Game Server Managers are command line tools for quick, simple deployment and management of various dedicated game servers using SteamCMD.

### Features

- Server installer (SteamCMD)
- Start/Stop/Restart server
- Server update (SteamCMD)
- Server monitor (including email notification)
- Server backup

- Server console

#### **Supported Servers**

- ARMA 3
- Blade Symphony
- Counter Strike
- Counter Strike: Condition Zero
- Counter Strike: Global Offensive
- Counter Strike: Source
- Day of Defeat
- Day of Defeat: Source
- Fistful of Frags
- Garry's Mod
- Half-Life: Deathmatch Classic
- Half-Life 2: Deathmatch
- Insurgency
- Just Cause 2
- Killing Floor
- Left 4 Dead
- Left 4 Dead 2
- No More Room in Hell

- Natural Selection 2
- Red Orchestra: Ostfront 41-45
- Team Fortress Classic
- Team Fortress 2
- Team Fortress Classic

Full list of servers and  
instructions: <http://gameservermanagers.com>

GitHub

Repo: <https://github.com/dgibbs64/linuxgsm>

## SteamCMD Guardian 1.2

The following script was tested on Debian Wheezy.

View and download

here: <http://pastebin.com/hcpMpmaZ>

### Installation

To make this script work, we need a location. Preferably you created a user (e.g. steam) with it's own home directory (/home/steam) and are logged in as it via SSH, tty or using su.

1. Make the file.

```
nano updateserver.sh
```

2. Paste in the code

3. Modify the code, add **at least 1** game to the `DL_SV*=rows`.

4. Close the file with **Ctrl+O**, followed by ↵ Enter and concluding with **Ctrl+X**.
5. Give the file execute rights for the user

```
chmod u+x ./updateserver.sh
```

6. Run the file

```
./updateserver.sh
```

The file will auto-download SteamCMD, update it and install all chosen games (up to 4). Run the file again to update the games.

## Known issues

### **ERROR! Failed to install app 'xxxxxx' (No subscription)**

If you get the 'No subscription' error, the game/server you are trying to download either requires a login or that you have purchased the game. You will therefore have to log in with a Steam username and password – if that doesn't help, you may need to purchase a copy of the game on Steam first. See [Dedicated Servers List](#).

For security reasons it is recommended that you create a new Steam account just for your dedicated servers.

For example

```
steamcmd +login <username>  
<password>
```

**32-bit libraries on 64-bit Linux systems**

Since SteamCMD is a 32-bit binary, 32-bit libraries are required.

The following error may occur:

```
steamcmd: error while loading
shared libraries: libstdc+
+.so.6: cannot open shared
object file: No such file or
directory
```

The resolution depends on your distro:

**Debian based distributions (Ubuntu, Mint, etc.)**

```
sudo apt-get install lib32stdc+
+6
```

 **ia32-libs** are not required to install SteamCMD; **lib32gcc1** is enough.

With **Debian 7 "Wheezy"** you may encounter this error:

```
The following packages have
unmet dependencies: ia32-libs :
  Depends: ia32-libs-multiarch
  but it is not installable
E: Unable to correct problems,
you have held broken packages.
```

To fix this, do the following:

```
dpkg --add-architecture i386
apt-get update
apt-get install lib32gcc1
```

**Red Hat based distributions (RHEL, Fedora, CentOS, etc.)**

```
yum install glibc.i686 libstdc+
+.i686
```

**Arch Linux**

Don't forget to first enable the [multilib repository](#).

```
pacman -S lib32-gcc-libs
```

## Login Failure: No Connection

On linux servers, you may experience a "Login Failure: No Connection" error. This is related to missing iptables rules. You will want something along these lines:

```
iptables -A INPUT -p udp -m udp  
--sport 27000:27030 --dport  
1025:65355 -j ACCEPT  
iptables -A INPUT -p udp -m udp  
--sport 4380 --dport 1025:65355  
-j ACCEPT
```

The port list is found here: [https://support.steampowered.com/kb\\_article.php?ref=8571-GLVN-8711&l=english](https://support.steampowered.com/kb_article.php?ref=8571-GLVN-8711&l=english)

On Windows servers, you may experience "SteamUpdater: Error: Download failed: http error 0" and "SteamUpdater: Error: Steam needs to be online to update. Please confirm your network connection and try again.". This is usually fixed by checking "Automatically detect settings" in IE (Internet Explorer) through the lan settings in the Internet option menu.

1. Open Internet Explorer (IE).
2. Click on *Tools* → *Internet Options*
3. Click on the *Connections* tab

4. At the bottom, you should see *Local Area Network (LAN) Settings*.

5. Check the first box (*Automatically detect settings*)

6. Hit *OK*, and *Apply*. Try running the SteamCMD again; if it still doesn't work, try lowering your *Internet Security level zone* to medium or lower. You can find that in the *Security* tab in *Internet Options*.

## SteamCMD startup errors

### Unable to locate a running instance of Steam

You may get the following error when starting a server with Linux:

```
[S_API FAIL] SteamAPI_Init() failed; unable to locate a running instance of Steam, or a local steamclient.dll.
```

Resolve the issue by linking `steamclient.so` to the `~/.steam/sdk32/steamclient.so` directory:

```
ln -s steamcmd/linux32/steamclient.so ~/.steam/sdk32/steamclient.so
```

### ulimit Linux startup error

Some users may get a `ulimit` error (no permission/cannot open file) while script is starting up. This error caused by a low

setting of the `-n` parameter (number of file descriptors) of `ulimit`. SteamCMD uses standard commands inside of the initialization shell script to change the `ulimit` automatically, but some servers may forbid increasing `ulimit` values after startup (or beyond a limit set by `root`).

This can be fixed by changing the file descriptor number `ulimit`:

```
ulimit -n 2048
```

If an error appears (*no permission*), you will have to log in as `root` to change the parameter. To check the current setting, type `ulimit -a`; the system will reply with many rows, you need to find one:

```
open files  
(-n) 1024
```

In this case, `1024` is the current value. `root` can also modify the limits in the `/etc/security/limits.conf` file.

In most instances you will simply get a warning message however it will not stop SteamCMD from running.

## Only the HLDS engine is downloaded

When trying to download a HL1 mod like TFC, initially it only downloads the engine files of the HLDS, but not the mod. This happens with both the regular version and the beta. You may have to try multiple

times until all the required files are downloaded, but once this is done, the files should update correctly next time.

Work-around for this issue

here: <http://danielgibbs.co.uk/2013/11/lds-steamcmd-workaround-appid-90/>

Just deleting the appmanifest files, without downloading replacements from a third party, may work as well! You will get an error at first though, complaining that something went wrong, which is due to the deleted files.

On a side note, for some reason CS is always installed as well.

## See Also

- [Source Dedicated Server](#)
- [Half-Life Dedicated Server](#)
- [Dedicated Servers List](#)

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