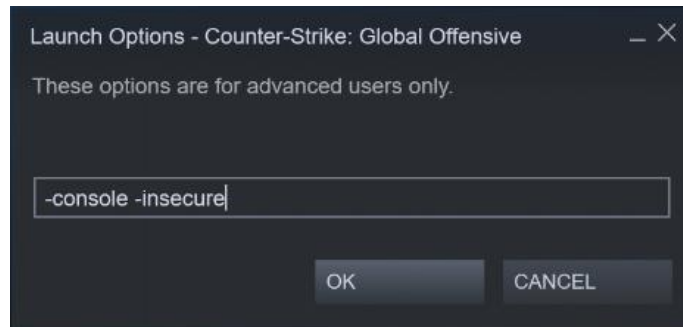


Setting Up CSGO for Game Hacking

Since CSGO is a commercial game, it has an anti-cheat, the famous Valve Anti-Cheat (VAC). The theory behind anti-cheat detection and bypass is far beyond the scope of this course, so we will not be considering it. Likewise, the cheat programs that you will write will be detectable by VAC (and will get you banned if you use them online!).

Because of this, it's important for us to setup CSGO so that VAC is disabled while we do our work. In fact, it's highly recommended you **make a separate Steam account** for this class, as CSGO is now free-to-play. First, in Steam edit the game's launch options.

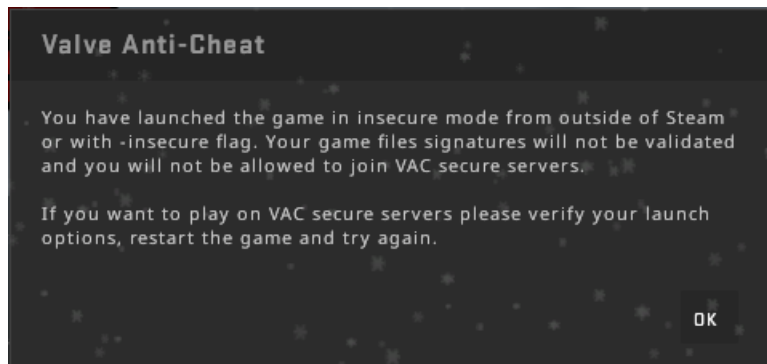


Add the parameters “-insecure” and “-console”: the first disables VAC, and the second one enables the in-game console which we will be using extensively. **Never attach Cheat Engine or debugger to CSGO outside of insecure mode, even in offline with bots! You may get permanently VAC banned!**

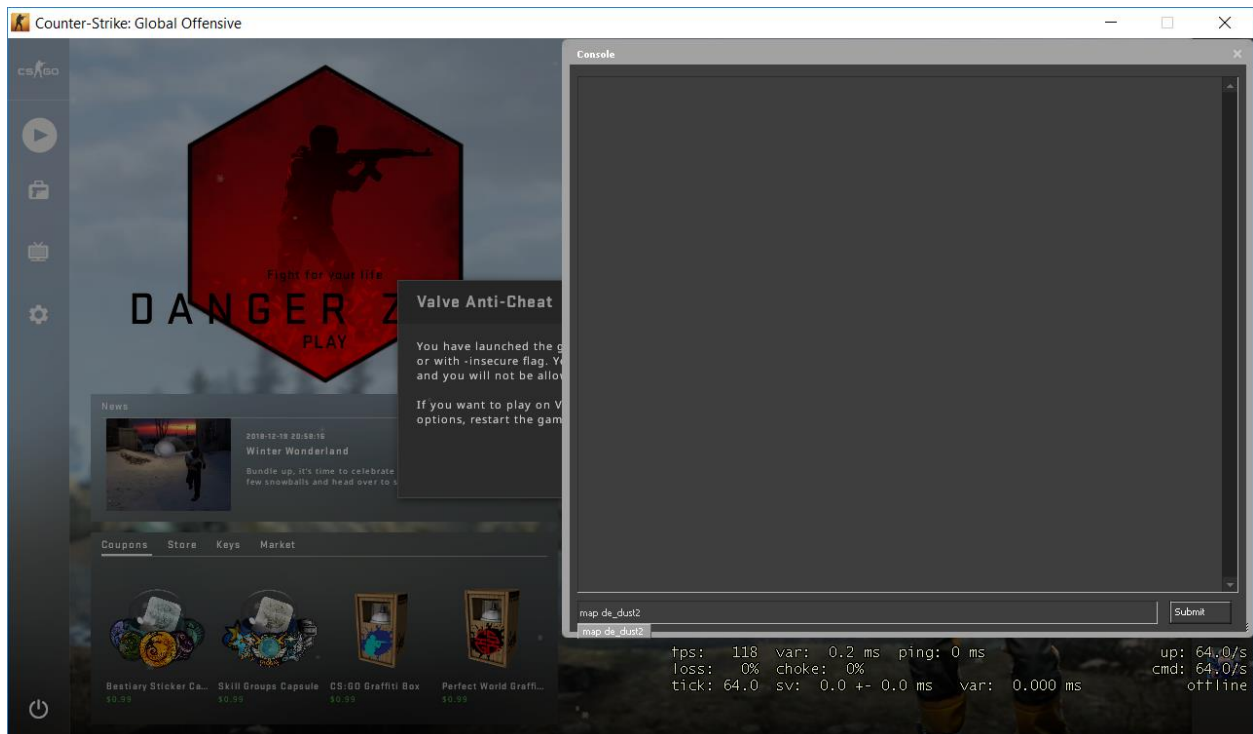
Next, we want to setup the in-game settings to make testing easy. First, go to your CSGO installation directory (typically C:\Program Files (x86)\Steam\steamapps\common\Counter-Strike Global Offensive), then navigate to the csgo\cfg folder. You should see a lot of .cfg files in this folder. These cfg files are basically console scripts the game uses for loading or initialization. We will make our own script here to setup an offline server with bots for testing. To do this, save the offline with bots testing .cfg from Slack into this directory. Any name ending with .cfg is fine, but I will call it server2.cfg for this tutorial.

| eamapps > common > Counter-Strike Global Offensive > csgo > cfg | | | | Search cfg |
|---|------------------|---------------|------|------------|
| Name | Date modified | Type | Size | |
| op08_heavy_assault_suit.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| op08_hunter_gatherers.cfg | 12/7/2018 21:13 | CFG File | 2 KB | |
| op08_stab_stab_zap.cfg | 12/7/2018 21:13 | CFG File | 3 KB | |
| op08_team_deathmatch.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| op08_trigger_discipline.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| op08_weapons_expert.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| random_client_names.vdf | 12/7/2018 21:13 | VDF File | 2 KB | |
| server_blacklist.txt | 12/31/2018 05:48 | Text Document | 1 KB | |
| server2.cfg | 1/2/2019 12:31 | CFG File | 1 KB | |
| settings_default.scr | 12/7/2018 21:13 | Screen saver | 3 KB | |
| sfm_defaultanimationgroups.txt | 12/7/2018 21:13 | Text Document | 2 KB | |
| start.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| steering_wheel.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| test.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |
| thirdperson.cfg | 12/7/2018 21:13 | CFG File | 1 KB | |

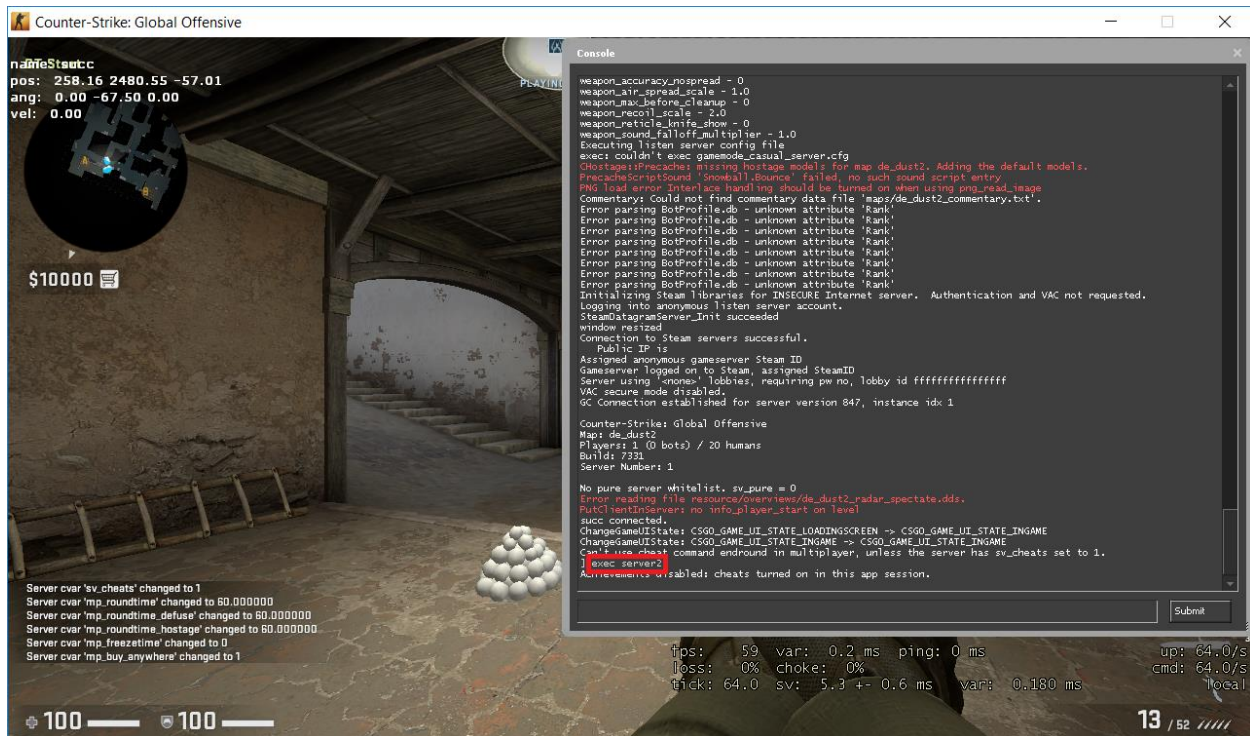
When you start the game, you should be greeted by this warning:



If you don't see it, don't continue! Ask for help to make sure you've correctly disabled VAC. Now, by default you can use the tilde key to activate the in-game console we enabled earlier. We can use the console to control a lot of things in-game. Let's load a map, in this case `de_dust2` for instance.



Once the map loads, join the Counter-Terrorist (CT) team then execute the console command `"exec server2"` (or whatever you saved your `.cfg` as). This will load the configuration that sets up the bots and round settings to make reversing and testing your cheat easier.



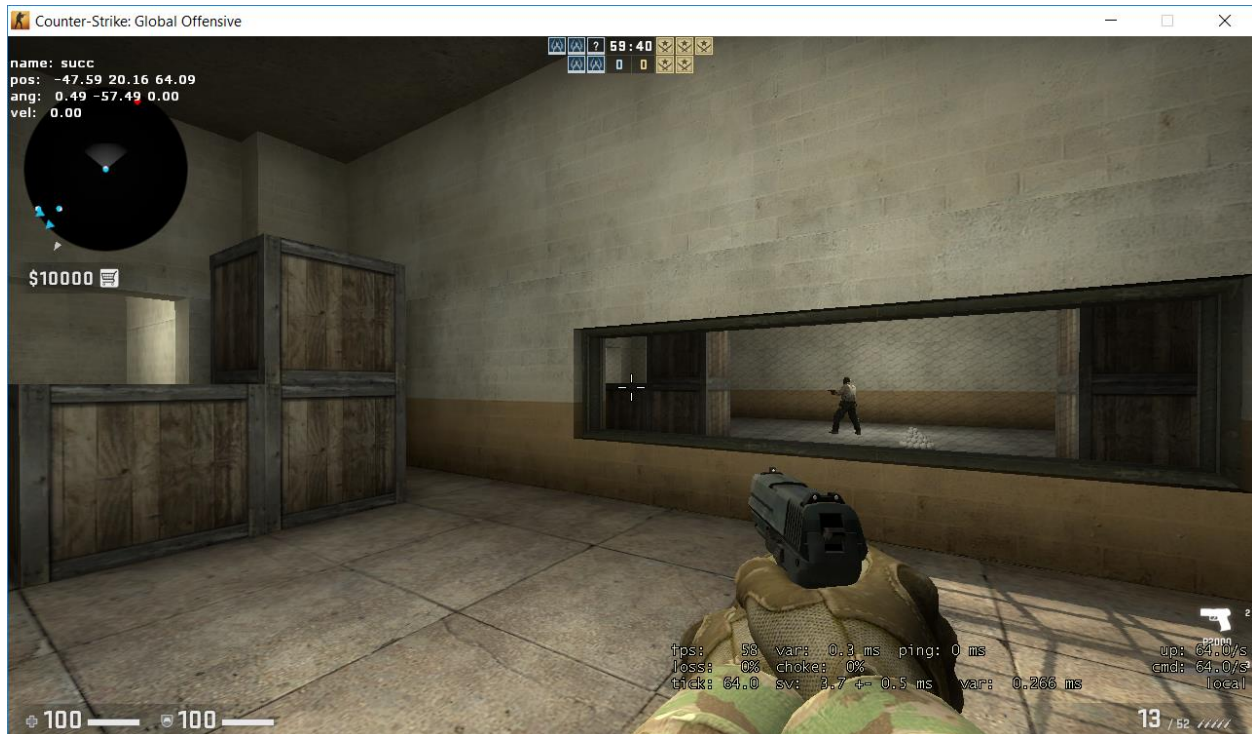
This config sets up several keybinds for you:

- n: Noclip (fly through walls)
- j: Max money and ammo
- l: Restart round
- k: Suicide

It also caps the FPS to make it easier on your computer while you're tabbed out of the game, and shows your position (useful for when we start working with position and angle vectors). Bots will respawn indefinitely when killed and don't move. If you want them to move, use the command "bot stop 0". To stop them again, use "bot stop 1".

You may have noticed that I work with the game in windowed mode, at 1280x720 resolution. This makes it easier to work with other programs like debugger, Cheat Engine, or ReClass while reversing the game. Moreover, it allows me to view the game and Cheat Engine simultaneously. I highly recommend this.

Also, a note about maps: in this tutorial I used `de_dust2` to test. However, `dust2` is a huge map and takes a long time to load. While reversing and testing, especially later in the course, you will crash the game. A lot. Each time, you will need to restart the game and reload the map. For this reason, I recommend you find a tiny custom map which loads very quickly as opposed to any of the vanilla maps that come with the game. I personally use the Steam Workshop map “achievement_idle”; it loads instantly and looks like this:



Link to the map: <https://steamcommunity.com/sharedfiles/filedetails/?id=169618856>

Another viable strategy to reduce loading time is to test on a dedicated server instead. For this class, I have setup an insecure-mode (VAC disabled) server that you can use for testing. Details in the Slack.

If you're stuck on any step, ask for help! Best of luck in your game-hacking endeavors.