

Hello,

If you're reading this it's probably because your computer is struggling to get a decent fps in game. I'm here to teach you how to fix that. As a bit of background I've worked in the IT/computer industry for over 8 years. I have also been building and repairing computers for 12 years.

The things I will be going over are as follows:

Software optimization

Windows optimization

Fps configs

Game configuration

First I will start with pc optimization. I will be going over the basics here First identify what's running. You can do this by opening task manager. Right click on your taskbar and click task manager. Then click the more details option. Look and see what running. Close down anything that isn't needed such as Skype, Spotify, and the like.

Next disable any unnecessary startup programs. You will find this in the startup tab. I would disable anything isn't mouse software or computer drivers. (or things you personally need to start on your computer) Most of the time this can include things like Itunes, Spotify, Extra startup things from prebuilt pc manufactures that simply aren't needed. If you're not sure of what you can turn off use this program by the folks at MalwareBytes called startuplite.

<https://www.malwarebytes.org/startuplite/>

Once you download it move the exe to your desktop and run it as admin or it won't work. Choose to disable anything it says you can.

Next is your antivirus software. I can not even start to explain the number of problems with slowing down your computer most antivirus software has. Also I don't care if you payed for it, my point is that it's probably trash and should be removed and replaced. I personally uninstall almost all of the antivirus software I find on my clients computers. (most of it is complete rubbish)

Get the uninstaller for your current antivirus. If you're not sure use the eset antivirus removal tool

http://support.eset.com/kb146/?locale=en_US

There are only a few I trust. I STRONGLY recommend you install MalwareBytes and run a scan with it

Download MalwareBytes here:

<https://www.malwarebytes.org/antimalware/>

Download Avast here (get the free version):

<https://www.avast.com/en-us/index#comparison>

Turning Avast into silent mode (to get rid of the popups)

Go into settings

Check the box that says silent/gaming mode

While you're in here check the scan for pups box.

Then go into sounds and uncheck allow sounds from avast

Then in the main window click register and choose the free version. Enter a random email address in the box and you're set.

Next run a MalwareBytes scan. This will clean any malicious software/adware from your computer Do the following

- 1) Open MalwareBytes (dua)
- 2) Click scan at the top
- 3) Click custom scan, Then configure
- 4) Click all the drives, along with "scan for rootkits"
- 5) Open the drive containing your Steam library and uncheck it as there's nothing harmful there and will take forever to scan through that. (Default path: c:\programfilesx86\steam\steamapps)
- 6) Click the scan now button and leave your pc on overnight to run the scan. It might take a while so be prepared to leave your pc on overnight while it scans.
- 7) Quickly look through the files it detected. I would recommend to quarantine all and only uncheck the ones you know you actually need. (such as if you cracked programs) **THIS WILL NOT DELETE YOUR DOCUMENTS OR PHOTOS.**
- 8) Restart when prompted

You may be wondering but what does this have to do with getting better fps. I am getting there but the above is important as this gets rid of junk running in the background and reduces the load on your computer therefore increasing pc and fps performance.

WINDOWS OPTIMIZATION

Your pc is now clean of malware but there's still things left to do

Open your control panel and go system and security

Then power options and make sure it's set to "high performance"

This will allow your computer to use all of its processing power to render your games and applications.

Back out of power options and go to system

-See how much ram you have. If you have 8gb or more of ram then do this next step

-Click on advanced system settings

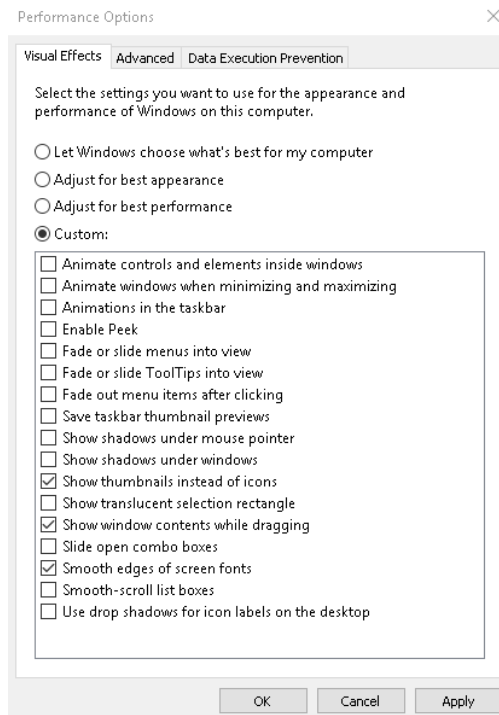
-Then click on performance under settings

-Go to advanced then under virtual memory click change

- Uncheck automatically manage paging file size
- Then select no paging file then click set.
- This step will force the computer to use the ram installed in the machine. Windows by default has a paging file. Which uses disk space as ram. This is much slower than using the actual ram installed in your computer

Next go back into the advanced system settings then performance

- Check adjust for best performance. If you can stand this then it is well worth the extra fps it will give. If you can't use the following



Next press the Windows key and R. Then type msconfig

- Click on the boot tab, Then click the box that says "noguiboot"
- Click advanced from here tik number of processors
- Increase that to the maximum number listed. Then tik max memory
- Once you click okay this will prompt you to reboot your computer. Choose the option do this latter.

Next is windows services, I will tell you which ones you can typically turn off with no issues.

To open services press the windows key and r then type services.msc

To turn off these services right click on them then hit properties change there's startup type to manual.

The reason why we're doing this is to reduce cpu and memory use on your computer.

Services you can commonly turn off include

Superfetch

Windows search (WARNING THIS CAN CAUSE WINDOWS SEARCH TO NOT WORK IN SPECIAL CASES)

Anything that involves apple

Print spooler. (if you don't print things)

Any of the hyper v services. (They let you use the hyper v suite if you're on the pro version of windows. But I frankly find VmWare Workstation to be better.)

Winrm

WmsRepair

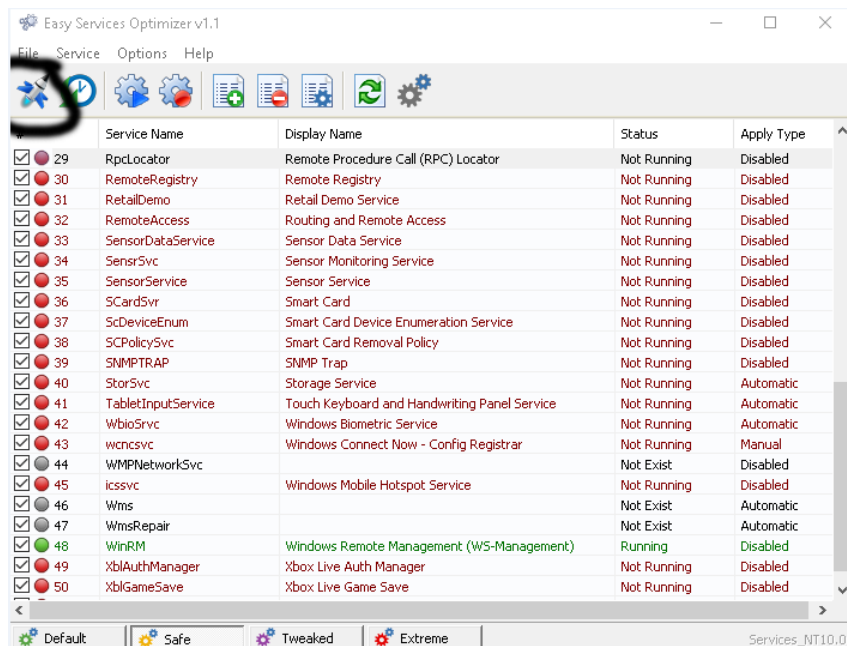
Iccsvc

Next we will use a program to turn off the rest of the services automatically. (doing them all manually takes a while and some users are not comfortable messing around in services.msc)

Get the latest version here:

<http://www.sordum.org/8637/>

If you choose to use it click on the safe tab then click the rocket ship under file.



Then restart your computer

Next install any windows updates. (And yes this does matter from a security and performance standpoint) This is where it varies on what version of windows you're on.

For Windows 7, 8, and 8.1, users do the following

- 1) Go to start then control panel. Then go to system and security then windows update.
- 2) Click check for updates

- 3) Click on important and check all
- 4) Click on option and check all
- 5) Install the updates
- 6) Restart when prompted too

For Windows 10

- 1) Go to start the pc settings
- 2) Then update and security.
- 3) Then "check for updates" let it install all updates.
- 4) Once prompted restart your computer.

Now on to fps configs. There are many to choose from My favorite would have to be comanglia's graphics config. As it generally yeilds the best fps. Though when you download it you need to make sure you getting the correct one. There are different ones available. These come down to how many cores/ what cpu you have in your computer There are 2 options for this

- 1) Comanglia's fps for high quality pc.s For this config to be stable you must have a quad core cpu installed in your gaming rig
- 2) For those with only a dual core or lower you need to use max fps for mid quality pc's
- 3) For the worst of the worst configs get comanglias max fps for mid quality then edit the file with the following cavaras

```
mat_filterlightmaps 0  
mat_filtertextures 0  
mat_specular 0  
mat_trilinear 0
```

Download the latest version of the config here on tf2tv.

<http://www.teamfortress.tv/25328/comanglias-config-fps-guide>

For installing the config after you download it you need to put into your tf2 folder. Instal it in the following directory

tf/custom/myscripts/cfg

-If you don't have a my scripts folder just make it.

Then you need to edit your autoexec.cfg and type the following

High quality pc -exec gfx

mid/toaster quality pc -exec stability

If you don't have an autoexec cfg here is a blank one I made Edit it accordingly

https://drive.google.com/file/d/0B_loCHMSRedyV1VVUFhLbDdfNjA/view?usp=sharing

This will exec comangli's config upon you starting tf2.

I recommend that you edit cominglas config to what network connection you have along with if you want to enable anything specifically. It's all labeled nicely with what certain things do.

For launch options use the following editing height and width as your monitor resolution

Windowed borderless (Fullscreen but less crashes when alt tabbing. When alt tabbing tf2 doesn't completely minimize but rather brings the task bar over top the tf2 window)

`-dxlevel 90 -sw -w WIDTH -h HEIGHT -console -noborder -novid`

Fullscreen

`-dxlevel 90 -full -w WIDTH -h HEIGHT -console -novid`

For the best performance use the following

`-dxlevel 80 -full -w WIDTH -h HEIGHT -console -novid`

If your pc still has problems running tf2 correctly consider scheduling a pc tune up with me

https://docs.google.com/forms/d/1YdLea-iER_PDugM2x-WyHkPg0IaO1fP5TrdaJdlmCoQ/viewform