A WaWa's Boot Camp Original. Join us for free coaching and community events at discord.gg/wawasbootcamp.

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Goal: to increase frame rate, reduce input lag, and gain a competitive edge.

Before starting, ensure optimization of background programs:

- Discord
  - Go to: User Settings —> Appearance —> Disable Hardware Acceleration (video)
- BattleNet
  - Go to: Blizzard —> Settings —> General —> Exit Blizzard App when launching game

SIM Value (*should be as low as possible; directly related to input lag*)

- Ctrl + shift + N to see SIM value (number on the rightmost)
  - Should ideally be below 7, but may go slightly higher in action
- To decrease:
  - Set OW priority to "High Priority" in task manager
  - Lower render scale
  - Enable full screen and lower settings
  - Turn off dynamic reflections, local reflections, and ambient occlusion

Video

- **Display Mode**: *Fullscreen is recommended* as it boosts your frames and lowers input lag, but some prefer Borderless Windowed and take the frame/input lag hit for the ease of tabbing in and out of Overwatch quickly.

- **Target Display:** *Choose whichever monitor you want the game to be on*. This simply controls which of your displays the game will be on.

- **Resolution**: *Always set to Resolution/frame rate of your native monitor*. If you want to change your resolution, do it by adjusting Render Scale and not Resolution. Make sure you set frame rate properly as well (# in parentheses).
  - Does not change Field of View
  - Only affects Fullscreen mode (Borderless Windowed will auto-adjust your Resolution)

- ○ Make sure you changed your frame rate on your monitor outside of game as well.

- **Field of View**: *Set to 103* for the largest field of vision.

- **Aspect Ratio**: Ratio of monitor width to monitor height; related to Resolution (i.e. 1920 X 1080 correlates to a 16:9 ratio [the most common]). This should auto-correct based on your Resolution.

- **VSync**: *Turn off.* Vertical Synchronization (VSync) syncs the games FPS with your monitors refresh rate. If you can get more FPS than your monitor can display, leave it off so you can benefit from the excess frames (with lower input lag). If you get screen tearing, VSync might help, but if not, you should generally leave it off.

- **Triple Buffering**: *Turn off.* This essentially sends an extra frame to your CPU, but isn't really needed unless VSync is enabled, which it shouldn't be.

- **Reduce Buffering**: *Turn on (preference).* Reduces input lag, but at the cost of frame rate. If you can sacrifice some performance, definitely *turn it on* for a competitive advantage.
  - ○ More info, but take caution of OP's advice (read through top comments to see opposing side)

- **Display Performance Stats**: *Turn on (preference).* Displays FPS and Ping, as well as other useful information.

- **Display System Clock**: *Turn off (preference).* Displays current time in your region.

- **Limit FPS**: *Try display-based AND custom @300* and see which one gives you the lowest SIM value (look to the end of the guide for an explanation on SIM value). Display-based option caps your frame rate at your selected refresh rate + 10 and may provide frame stability and a decrease in stuttering. Reports say there isn't much benefit in going above your monitor's frame rate cap by more than ~10, but there are also conflicting anecdotal reports that say custom has provided lower SIM values, so we suggest trying both for yourself. Your best option may depend on your specific setup.

- **Graphics Quality**: How the game looks. Most settings are preference due to difference in PC builds, but the generally recommended options are listed below (note: you can set Texture Quality, Texture Filtering Quality, Model Detail, and Antialias Quality on low to gain a few extra frames, but it won't be very significant).
  - ○ **Render Scale**: *75% can boost your frame rate*, but if you don't need that, you can keep it at the default 100%. Scale of how your resolution renders into your view.
  - ○ **Texture Quality**: *Set high.* Shouldn't affect frame rate much, but can lower for a small boost in FPS. Affects objects and the environment.
  - ○ **Texture Filtering Quality**: *Epic - 16x.* Shouldn't affect frame rate much. The quality of texture smoothing in the game.
  - ○ **Local Fog Detail**: *Set low.* Largely affects frame rate.The quality and quantity of smoke, fog, and cloud effects.
  - ○ **Dynamic Reflections**: *Set off.* This affects moving reflections and noticeably increase your input lag.
  - ○ **Shadow Detail**: *Set low (preference, or off).* Controls the quality of shadows in game, and being able to see shadows can give you a very slight competitive advantage (around corners, etc).
  - ○ **Model Detail**: *Set Low.* Shouldn't affect frame rate much, but reduces some in-game clutter and shrubbery, allowing you to see more. Controls quality of the models in game (such as the heroes).
  - ○ **Effects Detail**: *Set low.* Controls the quality of the effects in game such as fires, explosions, shots, etc.
    - ■ Interesting note: setting this higher might be able to help you in niche situations like seeing a firestrike around a corner a few frames earlier.

- **Lighting Quality**: *Set low.* Controls the quality of lighting in the game.
- **Antialias Quality**: *Set ultra.* Doesn't affect frame rate much. Smooths out edges and keep them from being jagged.
- **Refraction Quality**: *Set low.* Regards the way light bends or interacts with transparent or semi-transparent surfaces (like Reinhardt's shield).
- **Local Reflections**: *Turn off.* Alters reflections and related to input lag.
- **Ambient Occlusion**: *Turn off.* Approximates how bright light should be shining on any specific part of a surface based on the light and its environment.

- **Gamma Correction**: *Leave at default middle.* Defines the relationship between a pixel's numerical value and its actual luminance.

- **Contrast**: *Leave at default middle.* Ratio of the luminance of the brightest color to that of the darkest color.

- **Brightness**: *Leave at default middle.* Brightness of display.

Sound *(leave at default unless preferred otherwise)*
- **Master Volume**
  - **Music Volume**: *Turn off (preference).*
- **Dolby Atmos for Headphones:** *Turn on (preference)* if you're playing with headphones for [enhanced and detailed surround sound](). This may decrease the quality of the overall sound, but will give you a competitive advantage because you will be able to more easily identify which direction a sound (i.e. flanking Genji, ulting McCree) is coming from.

Controls *(leave at default unless preferred otherwise)*
- **Reticle:**
  - **Bloom**: *Preference.*
    - Might be preferred for some heroes such as Soldier 76 or Bastion, but can distract as well.
  - **Type**: *Preference.*
    - Recommended to use default type for Zarya (and Hanzo) to provide additional information.
  - **Color**: *Preference.*
    - Choose a stand-out color such as neon green or pink, or a neutral white.
- **Hero:**
  - **Allied Health Bars**: *Turn on.*
    - Can affect gameplay decisions, and the more information you have in-game, the better

Gameplay *(leave at default unless preferred otherwise)*
- **Always Skip Kill Cam**: *Turn off.*
  - Information (enemy ultimate status, location, etc.) is king.
- **Skirmish While Searching**: *Turn off / preference.*
  - Increases queue time while on.

Social *(leave at default unless preferred otherwise)*

Other Guides / References