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Thread: [Reduce Input Lag Drastically While Gaming! | NVIDIA Graphics | Ultra-Low Latency](#)

Deities - August 27, 2019, 9:13 pm

So you're a Hard Core gamer...

How to turn ON Ultra-Low Latency mode for NVIDIA Graphics Cards!

NVIDIA's graphics drivers has recently released a "Ultra-Low Latency mode" intended for competitive gamers & anyone else who wants the fastest input times while gaming. This feature is available for all NVIDIA GeForce GPUs in the NVIDIA Control Panel, yet it is not activated by default!

What Is Ultra-Low Latency Mode? Current standards have the graphics engines queue frames to be rendered by the GPU, the GPU renders them, and then they're displayed on your PC. As NVIDIA has developed, ultra-low latency mode builds on the "Maximum Pre-Rendered Frames" feature that's been found in the NVIDIA Control Panel for over a decade. That allowed you to keep the number of frames in the render queue down and response times lower. With "Ultra-Low Latency" mode, frames are added into the render queue just before the GPU needs them. This is "just in time frame scheduling," as NVIDIA calls it. NVIDIA says it will "further [reduce] latency by up to 33%" over just using the Maximum Pre-Rendered Frames option.

Here's when NVIDIA says you might want to use this setting: "Low Latency modes have the most impact when your game is GPU bound, and framerates are between 60 and 100 FPS, enabling you to get the responsiveness of high-framerate gaming without having to decrease graphical fidelity. "Warning: This will potentially reduce your FPS. This mode is off by default, which NVIDIA says leads to "maximum render throughput." For most people most of the time, that's a better option. But, for competitive multiplayer gaming, you'll want all the tiny edges you can get—and that includes lower latency. AKA: This reduced your input lag drastically at the "potential" cost of frames!

Instructions:

You'll need version 436.02 or newer of the NVIDIA graphics driver to take advantage of this. You can update your graphics driver through the GeForce Experience application or download the latest graphics driver directly from NVIDIA's website.

Once you have, launch the NVIDIA Control Panel. To do so, right-click your Windows desktop and select "NVIDIA Control Panel."

Click "Manage 3D Settings" under 3D Settings in the left sidebar.

Select how you want to enable Ultra-Low Latency Mode. To enable it for all games on your system,

select "Global Settings." To enable it for one or more specific games, select "Program Settings" and choose the game you want to enable it for.

Locate "Low Latency Mode" in the list of settings. Click the setting box to the right of the setting and select "Ultra" in the list.

With the default settings of "Off," the game's engine will queue one to three frames at a time. The "On" setting will force the game to only queue a single frame, which is the same as setting Max_Prerendered_Frames to 1 in older NVIDIA drivers. The Ultra setting submits the frame "just in time" for the GPU to pick it up—there will be no frame sitting in the queue and waiting.

Click the "Apply" button to save your settings. You can now close the NVIDIA Control Panel.

Remember, this option can actually hurt performance in many situations! It's recommend to enabling it only for specific games and testing your settings to see how well it actually works.

Let's hope you have a good gaming computer to handle this![/color]

Takehito Morokuzu - September 2, 2019, 11:41 am

Good tutorial, but it's not really a hacking tutorial.

cryp - September 2, 2019, 11:44 am

This isn't a hacking tutorial as the user said above me, but I just did this for rust and I literally already feel a fucking insane improvement. Time to triple headshot everyone. <3

cryp - September 2, 2019, 11:54 am

(Sep 2, 2019 11:50 AM)Lowkey Wrote: [\[CITE\]](#) Will this allow me to stream on laptop? I have made the adjustments and hope it wont affect my actual frames while going live

Depending on your stream settings it will make it smoother for sure, but that is if your computer can handle the streaming + latency mode.

Takehito Morokuzu - September 2, 2019, 12:50 pm

(Sep 2, 2019 11:50 AM)Lowkey Wrote: [\[CITE\]](#) Will this allow me to stream on laptop? I have made the adjustments and hope it wont affect my actual frames while going live

Ultra low latency will introduce much higher cpu usage. if you are streaming on the same pc as you are gaming on then you will likely see poor performance