

NVIDIA Introduces G-SYNC Technology for Gaming Monitors; Tears, Stutters, Lag Become Artifacts of the Past

Game Developers, Display Makers, System Builders Express Broad Support

MONTREAL, QC -- Solving the decades-old problem of onscreen tearing, stuttering and lag, NVIDIA today unveiled NVIDIA G-SYNC™ technology which, for the first time, enables perfect synchronization between the GPU and the display.

The result is consistently smooth frame rates and ultrafast response not possible with previous display technologies.

Several years in the making, G-SYNC™ technology synchronizes the monitor's refresh rate to the GPU's render rate, so images display the moment they are rendered. Scenes appear instantly. Objects are sharper. Game play is smoother.

"Our commitment to create a pure gaming experience led us to G-SYNC," said Jeff Fisher, senior vice president of the GeForce business unit at NVIDIA. "This revolutionary technology eliminates artifacts that have long stood between gamers and the game. Once you play on a G-SYNC monitor, you'll never want to go back."

Since their earliest days, displays have had fixed refresh rates -- typically 60 times a second (hertz). But, due to the dynamic nature of video games, GPUs render frames at varying rates. As the GPU seeks to synchronize with the monitor, persistent tearing occurs. Turning on V-SYNC (or Vertical-SYNC) eliminates tearing but causes increased lag and stutter as the GPU and monitor refresh at different rates.

G-SYNC eliminates this tradeoff. It perfectly syncs the monitor to the GPU, regardless of frame rate, leading to uncompromised PC gaming experiences.

G-SYNC technology includes a G-SYNC module designed by NVIDIA and integrated into gaming monitors, as well as hardware and software incorporated into certain Kepler-based GPUs. (A full list of GPUs that support NVIDIA G-SYNC is available [here](#).)

Leading Game Developers Blown Away

Game developers have quickly embraced the benefits of G-SYNC technology, which enables their games to be played seamlessly.

"The huge gains in GPU rendering power over the past decade have enabled developers and artists to create increasingly complex 3D scenes and worlds. But even on the highest end PC, the illusion of reality is hampered by tearing and stutter. NVIDIA G-SYNC elegantly solves this longstanding problem. Images on a G-SYNC display are stunningly stable and lifelike. G-SYNC literally makes everything look better."

-- *Tim Sweeney, founder, EPIC Games*

"NVIDIA's G-SYNC technology is a truly innovative solution to an ancient legacy restriction with computer graphics, and it enables one to finally see perfect tear-free pictures with the absolute lowest latency possible. The resulting output really allows your mind to interpret and see it as a true continuous moving picture which looks and feels fantastic. It's something that has to be seen to be believed!"

-- *Johan Andersson, technical director, DICE*

"With G-SYNC, you can finally have your cake and eat it too -- make every bit of the GPU power at your disposal contribute to a significantly better visual experience without the drawbacks of tear and stutter."

-- *John Carmack, co-founder, iD Software*

Rollout Plans by Monitor Manufacturers

Many of the industry's leading monitor manufacturers have already included G-SYNC technology in their product roadmaps for 2014. Among the first planning to roll out the technology are ASUS, BenQ, Philips and ViewSonic.

"ASUS strives to provide the best gaming experience through leading innovations. We are excited about offering NVIDIA's new G-SYNC technology in a variety of ASUS gaming monitors. We are certain that it will impress gamers with its incredible step-up in smoothness and visual quality."

-- *Vincent Chiou, associate vice president, Display Business Unit, ASUS*

"We are extremely thrilled to build G-SYNC into our professional gaming monitors. The two together, offering gamers a significant competitive advantage, will certainly take PC gaming experience to a whole new level."

-- *Peter Chen, general manager, BenQ Technology Product Center*

"We can't wait to start offering Philips monitors with G-SYNC technology specifically for gamers. We believe that anyone who really cares about their gaming experience is going to want one."

-- Sean Shih, global product marketing director, TPV Technology, (TPV sells Philips brand monitors)

"Everyone here at ViewSonic is pumped about the great visual experience that G-SYNC delivers. We look forward to making the most of this technology with our award-winning line of gaming and professional displays."

--Jeff Volpe, president, ViewSonic

Enthusiasm by System Builders and Integrators

A variety of the industry's leading system builders and integrators are planning to make G-SYNC technology available in the months ahead. Among them are Digital Storm, EVGA, Falcon Northwest, Overlord and Scan Computers.

"A look at G-SYNC is a look at the future of displays. Having to go back to a standard monitor after seeing it will start to annoy you. It's that good."

-- Kelt Reeves, founder and CEO, Falcon Northwest.

"G-SYNC is a ground-breaking technology that will deliver a flawless gaming experience. We're hugely excited that our customers will be able to enjoy incredible gameplay at any frame rate without tearing or stutter."

-- Elan Raja III, co-founder, Scan Computers.

For further information, visit the [G-SYNC](#) section of [NVIDIA.com](#).

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