NVIDIA RTX Platform Brings Real-Time Ray Tracing and AI to Barrage of Blockbuster Games

Led by Battlefield V and Shadow of the Tomb Raider, World's Top Game Developers Adopt NVIDIA RTX

Gamescom -- Following the introduction of the first NVIDIA Turing™ architecture-based GeForce RTX™ gaming GPUs, NVIDIA today announced that a barrage of blockbuster games -- led by Battlefield™ V and Shadow of the Tomb Raider -- are being developed on the NVIDIA RTX™ platform, enabling real-time ray tracing and all-new AI capabilities in games.

NVIDIA RTX has quickly emerged as the industry-standard game development platform for adding real-time ray tracing to games. The Turing architecture's new RT Cores enable real-time ray tracing of objects and environments with physically accurate shadows, reflections, refractions and global illumination.

"The NVIDIA RTX platform and GeForce RTX 20-series GPUs bring real-time ray tracing to games 10 years sooner than anyone could have ever imagined," said Tony Tamasi, senior vice president of Content and Technology at NVIDIA. "Thanks to the AI and hardware light-ray acceleration built into GeForce RTX GPUs, games using these futuristic features are right around the corner."

NVIDIA RTX comes with a strong set of tools that game developers are using to add ray-tracing and AI effects, including hardware and software that enable advanced programmable shaders, ray tracing and deep learning. The NVIDIA RTX platform benefits from support in Microsoft's new DirectX Raytracing (DXR) API, games adopting it in development for Windows and Vulkan APIs, and hardware acceleration integrated into NVIDIA's Turing architecture.

"GeForce RTX and NVIDIA's Turing architecture provide an astonishingly powerful new foundation for game development by combining ray tracing acceleration, artificial intelligence hardware, and programmable shading in one GPU for the first time ever," said Tim Sweeney, CEO of Epic Games.

Broad Game Adoption of Real-Time Ray Tracing
Games that will feature real-time ray tracing include the following, with more to come:

- Assetto Corsa Competizione from Kunos Simulazioni/505 Games
- Atomic Heart from Mundfish
- Battlefield V from EA/DICE
- Control from Remedy Entertainment/505 Games
- Enlisted from Gaijin Entertainment/Darkflow Software
- Justice from NetEase
- JX3 from Kingsoft
- MechWarrior 5: Mercenaries from Piranha Games
- Metro Exodus from 4A Games
- ProjectDH from Nexon's devCAT Studio
- Shadow of the Tomb Raider from Square Enix/Eidos-Montréal/Crystal Dynamics/Nixxes

Powered by Turing's Tensor Cores, which perform lightning-fast deep neural network processing, GeForce RTX GPUs also support Deep Learning Super-Sampling (DLSS), a technology that applies deep learning and AI to rendering techniques, resulting in crisp, smooth edges on rendered objects in games.

Broad Game Adoption of DLSS
Games that will use DLSS include the following, with more to come:

- Ark: Survival Evolved from Studio Wildcard
- Atomic Heart from Mundfish
- Dauntless from Phoenix Labs
- Final Fantasy XV from Square Enix
- Fractured Lands from Unbroken Studios
- Hitman 2 from IO Interactive/Warner Bros.
- Islands of Nyne from Define Human Studios
- Justice from NetEase
- JX3 from Kingsoft
- Mechwarrior 5: Mercenaries from Piranha Games
- PlayerUnknown's Battlegrounds from PUBG Corp.
- Remnant: From the Ashes from Arc Games
- Serious Sam 4: Planet Badass from Croteam/Devolver Digital
- Shadow of the Tomb Raider from Square Enix/Eidos-Montréal/Crystal Dynamics/Nixxes
- The Forge Arena from Freezing Raccoon Studios
- We Happy Few from Compulsion Games / Gearbox

Support from Industry's Top Developers
Many of the gaming industry's most important companies have expressed support for the NVIDIA RTX platform, in addition to developers of professional rendering applications, such as Adobe, Autodesk and Pixar. Among those voicing support include:

- "With GeForce RTX the future is now, and NVIDIA is reinventing graphics by enabling real-time ray tracing. For the first time, the NVIDIA RTX platform has given us the opportunity to integrate real-time global illumination into our engine, and specifically our upcoming title, Metro Exodus. This allows us to achieve the most realistic lighting simulations seen in real-time graphics." -- Oleksandr Shyshkovtsov, CTO, 4A Games

- "We had an excellent partnership with NVIDIA on Rise of the Tomb Raider. Now, thanks to NVIDIA RTX technology, we are pleased to announce that Shadow of the Tomb Raider will, quite fittingly, feature real-time shadows." -- Rich Briggs, senior brand director, Crystal Dynamics

- "From a game publishing perspective, GeForce RTX from NVIDIA is really exciting. We can see a future where games are more realistic and more immersive, for our game-playing customers. This is a great time to be a PC gamer." -- Klemens Kundratitz, CEO, Deep Silver

- "Battlefield fans expect us to keep pushing the boundaries of graphical fidelity and this new NVIDIA RTX platform allows us to hold true to that commitment. Our investment in RTX is allowing us to take a huge graphical leap forward and the ambition is that Battlefield will look vastly more lifelike and dynamic for PC players." -- Christian Holmquist, technical director, DICE

- "With its Turing architecture, NVIDIA has shattered the photorealism barrier that current-generation rasterizing techniques have presented until now." -- Kim Libreri, CTO, Epic Games

- "DLSS delivers a stunning picture by smoothing the edges of rendered objects like never before. For MMORPG, applying artificial intelligence to anti-aliasing results in a much-improved gaming experience -- it's a brilliant way to use GeForce RTX's Tensor Cores." -- Kris Guo, CEO, Seasun and senior vice president of Kingsoft

- "It was remarkably easy to integrate ray tracing into Atomic Heart using the NVIDIA RTX platform. As always, NVIDIA provided a great tool set along with their expertise, and GeForce RTX provided the necessary horsepower." -- Robert Bagratuni, CEO, Mundfish

- "GeForce RTX has made real-time ray tracing a reality in Justice, and the results are jaw dropping. Thanks to GeForce RTX, real-time ray tracing is here, and has arrived about 10 years ahead of schedule." -- ZhiPeng Hu, general manager of NetEase LeiHuo Studio

- "Real-time ray tracing was always something that was out of reach for gaming, but NVIDIA GeForce RTX changes that. Ray-traced shadows, reflections, refractions and ambient occlusion are stunning -- they are literally game changers." -- Donggun Kim, executive producer, ProjectDH, NEXON Korea devCAT Studio

- "Nixxes Software has a long history of collaboration with NVIDIA. We are excited to continue that tradition with the integration of real-time ray-traced shadows into the PC version of Shadow of the Tomb Raider." -- Jurjen Katsman, CEO, Nixxes Software BV.

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About NVIDIA

NVIDIA's (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world. More information at http://nvidianews.nvidia.com/.

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